

U. S. I. LIBRARY



Class No. ~~958.4~~ **M 584**

Book No. ~~690W~~ **690W**

M 584

C 90 W

V. 4

July 2

[illegible]

21 NOV 1966

THE WAR IN TURKUMANIA.

SKOBELEFF'S CAMPAIGN OF 1880-81.

BY

MAJOR-GENERAL N. I. GRODEKOFF,
OF THE IMPERIAL RUSSIAN ARMY.

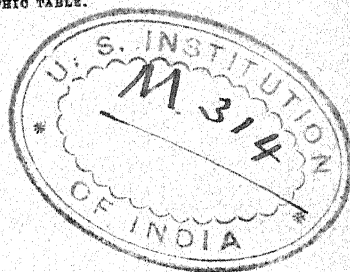
Translated from the Russian

BY

LIEUTENANT J. M. GRIERSON, R.A.,

VOL. IV.

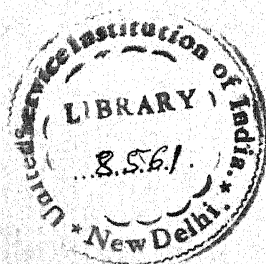
WITH 2 VIEWS, 2 MAPS, 2 PLANS AND A GRAPHIC TABLE.



SIMLA:
GOVERNMENT CENTRAL BRANCH PRESS.

1885.

SIMLA :
PRINTED BY THE SUPERINTENDENT, GOVERNMENT
CENTRAL BRANCH PRESS.



V

AUTHOR'S NOTE.

IN issuing the fourth and last volume of the *War in Turkumánia*, I make it my pleasant duty to invite the attention of my readers to the letter from General M. D. Skobeleff, inserted in Appendix CVII, respecting the part taken in the Akhál-Tekke Expedition by our Ambassador at Teherán, Iván Alexseivitch Zinóvieff, to whose directions and co-operation we were in a great measure indebted for the complete success of that expedition.

I also think it necessary to correct an omission in the third volume. In the chapter describing the siege of Gok-Tapa, by inexplicable negligence on my part, the following officers of the 2nd Caucasus Sapper Battalion were not mentioned by name, *viz.*,—Lieutenant Cherniak, who directed the mine; and Sub-Lieutenant Grineff, who superintended the traverse sap.

Táshkand ;
15th (27th) March, 1884. }

N. GRODEKOFF.

CONTENTS OF VOL. IV.

CHAPTER XVI.

PAGES

Gok-Tapa immediately after its capture—Proclamation by General Skobelev to the people of Akhál—Occupation of Askhábád—Advance into the desert—Its results—Return of the population from the desert—Return of the Turkistán Force to the Amu-Daria—Impression produced in Asia by the victory of the 12th (24th) January—Arrival of Deputies from the Sárík and Salór Turkumáns—State of affairs on the line of communications—Arrival in Trans-Caspia of General Pávloff—State of affairs at Marv—Arrival of Taghma-Sirdár with offers of submission—Formation of the Trans-Caspian Province—Nomination of General Röhrberg to be Governor—Settling down of the Tekkes—Departure of Russian troops for the Caucasus—General Skobelev's visit to the Persian Frontier and its results—Return of General Skobelev to St. Petersburg—Work left for General Röhrberg—Liquidation Committee

... ..

769—850

CHAPTER XVII.

Mission of Colonel Grodekoff to the northern provinces of Persia to form a lateral supply base—Instructions given to him by the Temporary Commander of the Trans-Caspian Field Force and by the Russian Ambassador at Teherán—Relief of the *Sipah-Salar*—The Kurd Provinces—*Ilkhánis*—Difficulties experienced by Colonel Grodekoff in fulfilling his mission—Formation of supply-depôts near the Tekke frontier—Transport of the supplies collected to Gok-Tapa and to Askhábád—Cost of the whole victualling operations in Persia

... ..

851—892

CHAPTER XVIII.

General review of the victualling of Russian troops during the steppe campaigns before the Akhál-Tekke Expedition—Composition of the Intendancy and Field Control of the Trans-Caspian Field Force—Establishment of receiving boards at Astrakhán and on the west coast of the Caspian—Storage of provisions, grain, hay, ship's rations, and packing and covering materials—Supply of meat—Orders for the rationing of the troops—Operations of the Field Control; (1) on receiving boards; (2) in verifying contents of

supply-depôts ; (3) in medical establishments ; and (4) in inspecting transport animals and the transport of supplies—Working of the preliminary ; as regards demands for money and its results	893—956
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----	-----	-----	---------

CHAPTER XIX.

Medico-topographical description of Trans-Caspia—Conditions militating against the health of the troops in 1879—Sickness and mortality in 1879—Composition of hospital establishments in 1880-81—Sanitary measures—Sickness and mortality in 1880-81—Removal of the sick—Disinfection of the country—The Red Cross Society	957—1011
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----	-----	-----	----------

APPENDICES TO CHAPTER XVI.

APPENDIX 82.—Return of the troops moved to Askhábád up to the 17th (29th) January 1881	...	...	...	1015
APPENDIX 83.—Regulations for the telegraph lines and stations constructed by the Military authorities in Trans-Caspia and designated to be handed over to the Ministry of Posts and Telegraphs	...	...	...	1016—1018
APPENDIX 84.—General Skobelev's Memorandum, dated 21st February (5th March) 1881, regarding the proposed fortified post at Askhábád	...	...	...	1018
APPENDIX 85.—Temporary establishment of the Administrative Staff of the Trans-Caspian Province	...	...	...	1019—1021
APPENDIX 86.—Return of the troops remaining in Trans-Caspia on the departure of General Skobelev in the end of April 1881	...	...	...	1021
APPENDIX 87.—Return of Artillery stores in Trans-Caspia	...	...	...	1022
APPENDIX 88.—Return of Engineer stores in Trans-Caspia	...	...	...	1023—1024
APPENDIX 89.—Return of provisions, ship's rations and forage in the supply-depôts of Trans-Caspia on the 1st (13th) May 1881	...	...	...	1025
APPENDIX 90.—List of the settlements in the Akhál-Tekke oasis with the names of their Elders and the number of <i>kibitkas</i> in each, dated 14th (26th) April 1881	...	...	...	1025—1026

APPENDICES TO CHAPTER XVIII.

APPENDIX 91.—Project of the Imperial Controller, confirmed by His Majesty on the 5th (17th) May 1880, and instructions for the Control Department with the Trans-Caspian Field Force	...	...	...	1027—1034
APPENDIX 92.—Instructions for the boards established in the towns of Astrakhán, Petrovsk, Lankorán and Baku, relative to the receipt from the contractors and Government victuallers of provisions, forage, and other articles of supply for the troops in Trans-Caspia, and the supply-depôts in that province	...	...	...	1034—1036
APPENDIX 93.—Comparative statement of the loss of stores in transport on pack-animals, according to the table appended to section 238, Vol. XII, of the Code of Military Law, and according to the decision of the boards convened to weigh articles supplied to the advanced force	...	...	...	1036
APPENDIX 94.—Return of supplies, materials, &c., lost during transport in the convoys of the merchant Gromoff	...	...	...	1037—1039
APPENDIX 95.—Contract concluded with Khivan merchants for the supply of meat	...	...	...	1039—1040
APPENDIX 96.—Contract concluded with Gromoff, merchant of the 1st Guild of Tashkand, for the supply of meat	...	...	...	1040—1041

APPENDIX 97.—Rules for the preliminary verification of expenditure incurred by departments and officials and of sums disbursed from the field treasure chest in Trans-Caspia ...	1042—1044
APPENDIX 98.—Return of the assignments noted as non-payable or as conditionally payable during November 1880 ...	1045—1046

APPENDICES TO CHAPTER XIX.

APPENDIX 99.—General return of increase and decrease amongst the sick in the medical establishments of Trans-Caspia, and in the regimental hospitals of the troops engaged in the Akhál-Tekke Expedition ...	1047—1048
APPENDIX 100.—Return of the monthly fluctuations amongst the sick and wounded in the medical establishments and regimental hospitals of the Trans-Caspian Field Force ...	1049—1092
APPENDIX 101.—Return of the sick and wounded in regimental hospitals, temporary field hospitals and infirmaries in Trans-Caspia during the Akhál-Tekke Expedition from 1st (13th) May 1879, to 1st (13th) July 1881 ...	1093—1096
APPENDIX 102.—Return of the men invalided and discharged as unfit for service from amongst those who took part in the Akhál-Tekke Expeditions of 1879-81 ...	1097
APPENDIX 103.—Regulations for the Society of the Red Cross in the Akhál-Tekke Expedition ...	1098—1099
APPENDIX 104.—Return of stores, &c., sent by the Red Cross Society to Trans-Caspia in 1880 ...	1099—1101
APPENDIX 105.—Statement of the expenditure incurred in the Akhál-Tekke Expedition of 1880-81 ...	1102—1103
APPENDIX 106.—Statement of the expenditure of the extraordinary sums assigned for the Akhál-Tekke Expedition of 1880-81 ...	1103—1107
APPENDIX 107.—Copy of a letter from General Skobelev to the Minister of Foreign Affairs, Mr. N. K. Giers ...	1107

VIEWS.

1.—Hill of Dangil-Tapa ...	Page 669 of Chap. XVI of this Vol.
2.—Half-station (Blockhouse) at Ushák on the Trans-Caspian Railway ...	To face page 848

MAPS.

1.—Supply-depôts of the Akhál-Tekke Expedition ...	To face page 859
2.—Medical establishments of the Akhál-Tekke Expedition in Persian territory ...	To face page 975

PLANS.

1.—Fort, constructed at the north-west angle of Dangil-Tapa in January 1881 ...	To face page 773
2.—Projected fortified post at Askhabád ...	To face page 828
Graphic table showing the monthly rates of sickness and death amongst the troops of the Trans-Caspian Field Force, during 1880 and 1881 ...	To face page 989.



1000

1000

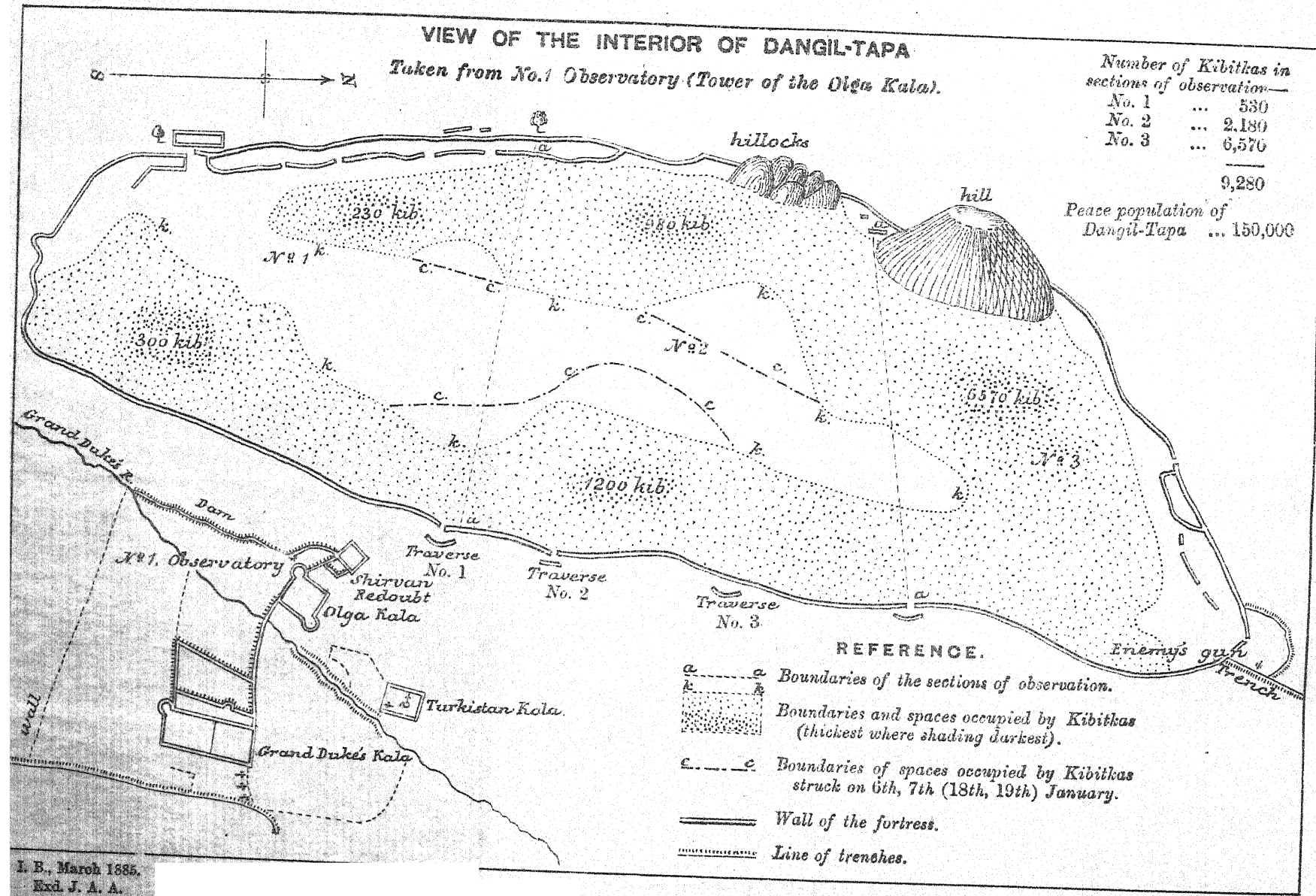
1000

1000

1000

VIEW OF THE INTERIOR OF DANGIL-TAPA Taken from No.1 Observatory (Tower of the Olga Kala).

Number of Kibithas in sections of observation—		
No. 1	...	530
No. 2	...	2,180
No. 3	...	6,570
		<hr/> 9,280
Peace population of Dangil-Tapa ... 150,000		



-TAPA

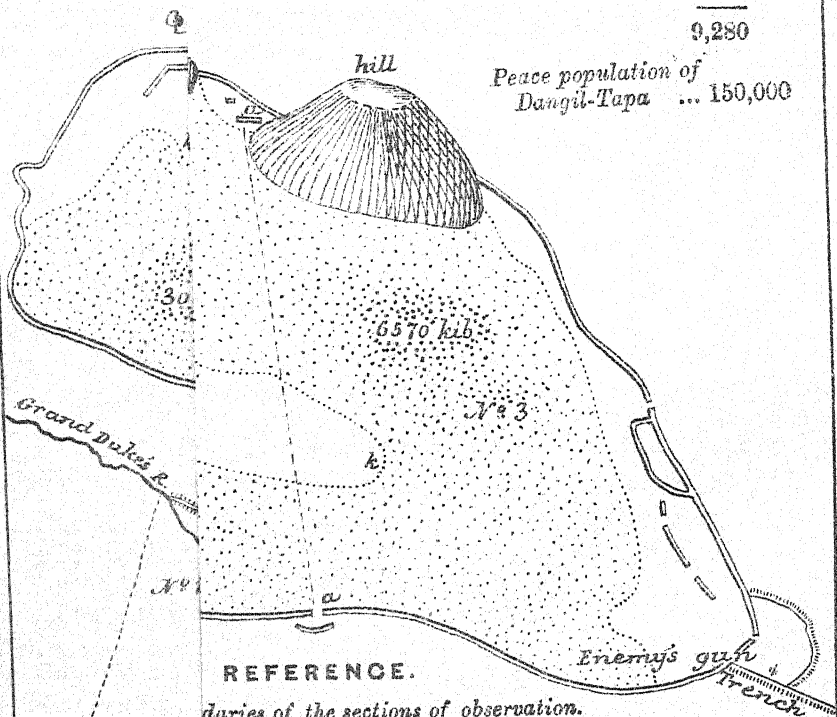
Nga Kala).

Number of Kibithas in sections of observation—

No. 1	...	530
No. 2	...	2,180
No. 3	...	6,576

9,280

Peace population of Dangil-Tapa ... 150,000



REFERENCE.

daries of the sections of observation.

daries and spaces occupied by Kibithas (ickest where shading darkest).

daries of spaces occupied by Kibithas (ick on 6th, 7th (18th, 19th) January.

of the fortress.

of trenches.

THE WAR IN TURKUMÁNIA.

SKOBELEFF'S CAMPAIGN OF 1880-81.

CHAPTER XVI.

Gok-Tapa immediately after its capture—Proclamation by General Skobelev to the people of Akhál—Occupation of Askhabád—Advance into the desert—Its results—Return of the population from the desert—Return of the Turkistán Force to the Amu-Daria—Impression produced in Asia by the victory of the 12th (24th) January—Arrival of Deputies from the Sárík and Salór Turkumáns—State of affairs on the line of communications—Arrival in Trans-Caspia of General Pávloff—State of affairs at Marv—Arrival of Taghma-Sirdár with offers of submission—Formation of the Trans-Caspian Province—Nomination of General Röhrberg to be Governor—Settling down of the Tekkes—Departure of Russian troops for the Caucasus—General Skobelev's visit to the Persian Frontier and its results—Return of General Skobelev to St. Petersburg—Work left for General Röhrberg—Liquidation Committee.

AFTER the capture of Dangil-Tapa, part of the force was left as a garrison in it, 6 companies of Infantry under Captain Másloff of the Engineers occupying its north-west angle, and 4 companies and a *Sotnia* under *Voiskovói-Starshina* Vereshshágin the southern angle. On the summit of the hill, on which the enemy had constructed a small redoubt,* was planted a large Imperial standard; here also six guns (two 4-pounders, two 3-pounders, and two 18-lb. mortars), which had been brought up by a road made by the sappers on the day of the action, were placed in position; and a heliograph station, in communication with Sámurskoye, was established. Colonel Artsishevski was named Commandant of Gok-Tapa, and the troops encamped round it, *Voiskovói-Starshina* Vereshshágin being second in command.†

On the same day, the Temporary Commander of the Force gave orders for a project to be drawn up, and for immediate measures to be taken to put the hill and north-west angle of the fortress in a state of defence, both being united so as to form one post.

While part of the troops were pursuing the enemy into the desert, others were occupied in clearing the interior of the fortress from Tekkes. All who

* Here the Tekkes had established a workshop for casting cannon-balls and repairing

had not succeeded in escaping were killed to a man by the soldiers, the only males spared being the Persian prisoners, who were easily recognized by the fetters on their legs, and of whom there were about 600 in all. After that, only women and children to the number of about 5,000 were left in the fortress. These had been much terrified by the heavy cannonade preceding the attack, and when all was over, they were seen rushing about among the *kibitkas* filling the air with their lamentations and prayers for mercy.

By order of the Commandant, the interpreter, Captain Baitokoff, with a few Cossacks, rode about all over the fortress and ordered the women to assemble with their children in one place on the hill. Few of these unfortunate ones slept that night, but passed it crying and shivering from cold and fright, expecting that, according to Eastern custom, they would all be killed. The place occupied by the women was surrounded by a chain of sentries.

This gathering together of the families of the Tekkes was indispensable for several reasons. We thus gained a valuable pledge for the speedy pacification of the country; for it was evident that the Tekkes would have to return to their families, and, besides, with soldiers moving day and night about the fortress, which had been given over to them to loot for four days, the women were thus saved from many annoyances.*

As regards the booty taken from the enemy, the Commander of the Expedition had laid down the following rules on the 3rd (15th) June 1880:—(1) Camels, sheep, and horned-cattle taken from the enemy in a hostile country are military booty, and will be assigned by order to the troops; (2) all captured *kibitkas*, corn, grain, firewood and other articles considered by General Skobelev as useful for the service, are Government property; (3) horses are the property of their captor, but, in certain cases, General Skobelev reserves to himself the right of claiming them as Government property.†

Under the influence of panic, the Tekkes had left all their property behind them in the fortress, and almost the whole of the interior of Dangil-Tapa, except a broad avenue from the southern angle to the hill, was covered with *kibitkas* closely packed together: the number was estimated at 12,000. Mixed up with them in all directions were mud huts and sunken pits covered over with light branches, which were filled with food supplies and all sorts of household utensils. There were also large quantities of carpets, cushions sewn with wool or silk, silken covers, woollen and silken cloth, looms, clothing, women's ornaments, silver pendants with precious stones (turquoises and cornelians), kettles, and irons, pans, and agricultural implements. Comparatively few arms were found; but everything else became the spoil of the victors.

In the fortress were also found large quantities of food supplies, mostly grain, and it was estimated that in each *kibitka* there were from three to five *churals* (large sacks holding from 250 to 320 and even 430 lbs.) filled with provisions. Few horned cattle were found (as the Tekkes had only driven in from the desert from time to time those required for consumption), and still fewer horses and camels. The value of the whole booty was estimated at 6,000,000 *roubles* (£600,000).

The overthrow of the enemy had been complete, and was such as it ought always to be in Asia, where a defeat without material loss is not understood.

In fact, it was such an one as General Skobelev had sketched out when at St. Petersburg,—one which should not only impose on the imaginations of grown men, but also remain in the recollection of future generations with whom it would assume legendary dimensions. Only by such a defeat could the Tekkes, who had hitherto not felt our power, be made into obedient subjects. The same system was to have been carried out if Gok-Tapa had surrendered before being stormed, and General Skobelev had intended to carry off the whole Tekke population as prisoners to the sea coast.

Holding such views, General Skobelev had requested that no officers whose humanitarian ideas were not in accord with his own should be sent to the force, and he had written to the Chief of the Staff of the Caucasus Military District :—
 “ In Marvin’s recently-issued work on last year’s Akhál-Tekke Campaign, the humanitarian author mentions with special praise that several officers of the cavalry had protested by their actions(?!) against the cruel measures of the Commander with respect to the Tekke families who were leaving the fortress during the attack of the 28th August (9th September) 1879. * * * The hard necessities of war are everywhere alike, and the measures prescribed by General Lomakin require no justification. The same was done before Paris in 1870-71, and before Plevna, *and it will be the same in future wars also.** There can be no question as to this in my mind, or as to the warrior being permitted to have no opinion of his own in such matters and being only obliged to fulfil his orders. A violation of orders is an inconceivable thing in a well-organized army. I must ask you, for the good of the service and for the benefit of the duty entrusted to me, only to send me officers whose sole idea is their duty, and who do not entertain visionary sentiments. I insist upon this, as, if such an event as that described by Marvin occurred in the force under my command, it would be made the subject of a court-martial. You will easily see what endless difficulties such a state of affairs would give rise to.”†

On the 13th (25th) January, General Skobelev rode round the west front of Dangil-Tapa where Haidaroff’s column had operated the day before. Here, and on the route taken by the other storming columns, the ditch was almost filled up, and the surrounding ground was covered with corpses. After inspecting the ground on which the action of the 28th August (9th September) 1879 took place, the General returned at midday to the fortress by the north front, and with his troops took part in a thanksgiving service for our victory, and a mass for the souls of those who had fallen on the 28th August (9th September) 1879 and 12th (24th) January 1881.

Immediately after the capture of the place, it became necessary to take measures for the supply of the Tekke families with provisions and household utensils. Without these measures, this crowd of starving people, weakened by the hardships of the siege, and almost mad with fear, would have become a fearful incubus to us, and sickness would certainly have broken out. Besides, putting humane considerations out of the question, such an act of clemency to the women and children would be a good opportunity for showing our wild, but brave, enemies how great was moral force and how strong the will of the conqueror. With this object, a committee of management was formed on the 13th (25th) January under the presidency of Superintending Field Controller Cherevanski, which took over the duty of providing the Tekke families with the most necessary supplies and utensils out of those left by the enemy.‡

* This clause is italicised in the passage quoted.—*Author.*

† Letter from General Skobelev to General Pávloff, No. 4, dated Bámi, 19th (31st) July

In the course of the four days following the storming of Gok-Tapa all this crowd of women and children was provided, for a more or less prolonged period, with supplies from the booty; and, besides, the Red Cross hospital opened a branch to receive wounded women. A camp for the Tekke families was pitched alongside the Grand Duke's position. At first it was proposed to send the families of the most influential men to the rear under a strong guard, and to transfer the rest of the families to Kuhna (Old) Gok-Tapa, and leave them there, without a guard, but with 25 *Jigits* for their protection, and with instructions that they were to remain with the families and inform any Tekkes who might come back that their women and children would at once be handed over on the tendering of their submission. This proposal was not, however, carried into effect, because we should have thus lost one of our most important means of pacifying the country. If sent to Kuhna (Old) Gok-Tapa, the women would have been deprived of their means of subsistence and might have died of hunger and want. It was, therefore, ordered that the families should be kept under a guard.*

The news of the humane conduct of the Russians quickly spread through the settlements of the beaten enemy and there produced a most favourable impression. According to Mussulmán custom they had been used to seeing the victor exterminate the vanquished. The women also had expected this, and when the members of the committee invited them to go into the fortress to fetch bread, firewood, and clothing, they said: "What is the use of all that if our heads are to belong to us no longer?" But on the second or third day the camp of the women and children presented quite a lively aspect, and they were evidently suffering from neither cold nor hunger. The issue to them of food and cooking and other utensils, which were of no value to the troops or to Government, was carried out without stint and in no definite proportions, as it was impossible to take accurate account of this hungry crowd of women and children. To attempt to do so would have been impracticable. The women took everything away with them from the fortress that they could carry, and it will be understood that this measure did not fail to produce new relations between conqueror and conquered.

After carrying out their duty, the special committee gathered up the remains of the food stores scattered throughout the *kibitkas* and pits in which they had been concealed by the enemy during the siege.† The total collected was:—

Wheat flour	...	...	...	2239·92 cwt.
Wheat in grain	...	...	...	5153·6 "
<i>Sorghum</i> (<i>Jugára</i>)	...	...	...	1323·52 "
<i>Saman</i>	...	...	...	814 <i>chuváls</i> . ‡
Sesame seeds	...	...	...	360 lbs.

Of this, all the *saman* was handed over to the troops. Then all the wheat flour and an equal quantity of wheat in grain were handed over to the Intendance so as to make up a month's supply for 6,000 men. The rest of the wheat and of the *sorghum* was afterwards given to the poorest of the Tekkes who returned to their former homes, so as to enable them to sow a portion at least of their fields.§

The above figures do not represent nearly all the supplies found in the fortress, as a large proportion of them was taken away by the troops and the Kurds. For the first three days after the capture of the fortress, the greater

* Instructions to Artsishevski, No. 350, dated 17th (29th) January 1881.—*Author*.

† General Order No. 33, Trans-Caspian Field Force, dated 13th (25th) January 1881.—*Author*.

‡ Report from Colonel Artsishevski, No. 291, dated 30th January (11th February) 1881.—*Author*.

§ Instructions to Artsishevski, No. 431, dated 30th January (11th February) 1881.—*Author*.

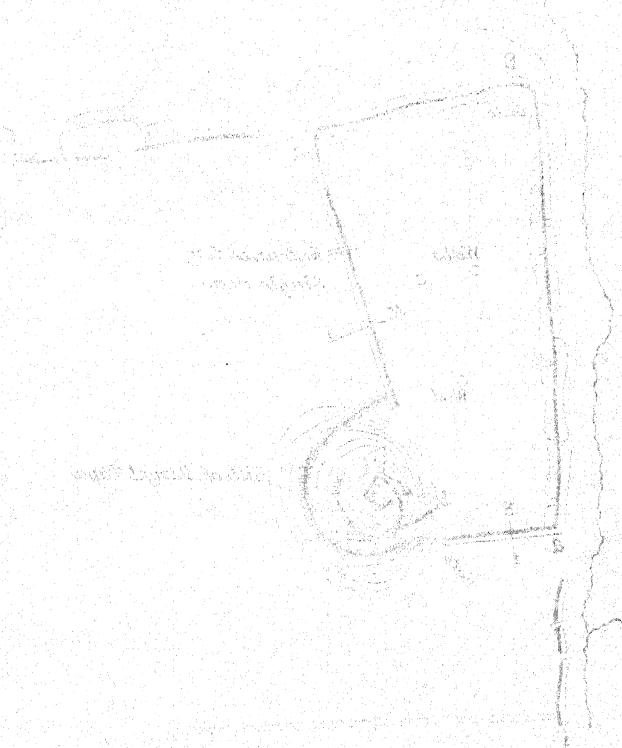
FOOTING POINT

THE NORTHWEST CORNER OF TANGHAI DATA

in January 1961

Scale 1:50,000

Sheet 1 of 1

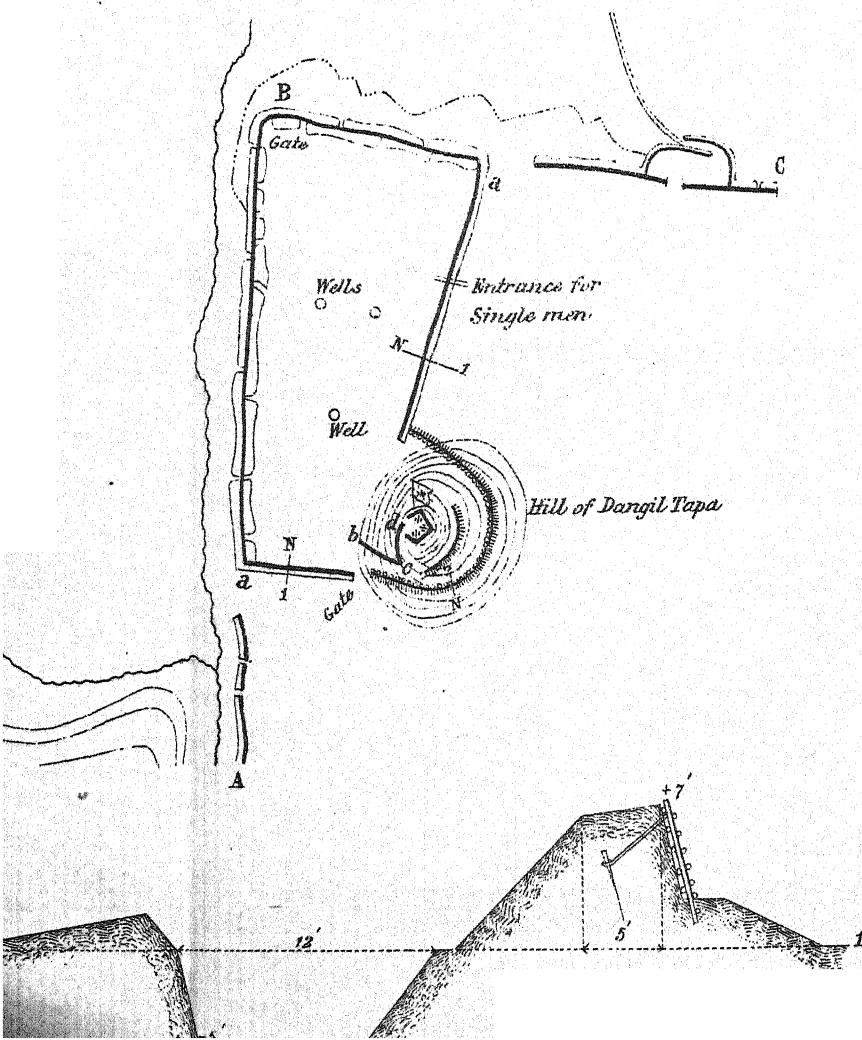


FORTIFIED POST

STRUCTURED AT THE NORTH-WEST ANGLE OF DANGIL-TAPA
in January 1881.

Scale for Plan 350 Feet to 1 Inch.

Feet 280 240 200 160 120 80 40 0 350 700 Feet



number of the men were not supplied from the rations got ready by their company cooks, but prepared their own food from the captured supplies.

After the taking of Gok-Tapa, the camp of the main body was removed from its former position to a new one to the west of it and to the left flank of the Stávropol redoubt. This measure was necessary, because, in consequence of the crowded state of the old camp during the siege, a quantity of decomposing matter of all kinds had accumulated in it, and also because those who had been killed or had died in the hospitals had been buried close by. Of the troops remaining near Gok-Tapa, part occupied the fortress, and one company the Grand Duke's position. Guards were placed on the gates, and these furnished sentries along the walls. On the 17th (29th) January, access to the fortress was forbidden to the soldiers by order of Colonel Artsishevski, who had been appointed commandant of the troops at Gok-Tapa on the 14th (26th) January.* Single men were admitted through the breach made by the artillery, but only when provided with a pass from the commandant's office. The breach made by the mine was closed up.

During the four days following the storming, besides the captured supplies, &c., being collected, works had been undertaken for the construction of a defensive post on the north-west angle, and a large number of the dead bodies which encumbered the *kibitkas*, the open space, and the ditch, had been collected and buried. Only after the capture of the fortress was it possible to form an idea of the terrible losses sustained by the enemy from artillery and rifle fire during the siege. *Kibitkas* might be seen inside the fortress in which there were 15 corpses, and it was evident that in the last days of the siege the Tekkes had not buried their dead, but had only collected them in heaps in various parts of the fortress. For the disinfection of the fortress a special committee under Surgeon Heifelder, the Principal Medical Officer of the force, was formed.†

Recognizing that, for political reasons, it was absolutely necessary that we should maintain for some time a garrison, however small, in the fortress of Dangil-Tapa, General Skobeleff ordered a defensible post for 4 companies, 1 *Sotnia*, and 8 guns to be begun and finished as soon as possible. The experience of the 28th and 30th December 1880 (9th and 11th January 1881) and of the 4th (16th) January 1881, had shewn that only fortified posts which were secure from escalade could be considered as suited to our purposes, and therefore the new work was placed in the north-west angle of Dangil-Tapa, advantage being taken of the high walls of the former Tekke fortress on two sides.‡

The work was begun by the troops; but as they were much fatigued, and as the approach of spring was sure to have a bad effect on their sanitary condition, General Skobeleff insisted that the troops should not be used for the work, but that labourers should be brought from Persia.§ This was a great advantage, as the troops had been worn out before Gok-Tapa. He recommended that the Persian workmen should be treated very kindly and indulgently to gain them to our side, as much depended on their participation in the work of restoring the *oasis* to its former fertile state. With time and when affairs had settled themselves, our relations with Persia would also become improved; and as long as the frontier question remained open, it was of the greatest importance to raise no cause of discontent among our neighbours. "They will not

* General Order No. 21, dated 14th (26th) January 1881.—*Author*.

† General Order No. 36, Trans-Caspian Field Force, dated 13th (25th) January 1881.—*Author*.

‡ See plan of the Russian Fort of Gok-Tapa.—*Author*.

§ Instructions to Colonel Volkoff, No. 278, dated 13th (25th) January 1881.—*Author*.

believe us," wrote General Skobelev to Artsishevski, "and all the rulers in Khurásán are ready to use every means to arouse serious suspicions at Teherán. This would be bad for us, both from an Imperial and from an international point of view. Extreme care is now required. One fool may throw a stone into the water, and ten wise men will not get it out again. It is always possible to change from flattery to threats, but the reverse is not so easy." General Skobelev desired to have 500 Persian workmen at our disposal at Gok-Tapa, and to entrust to them the work of constructing the defensive post, burying the dead in and around Dangil-Tapa, and gradually throwing the walls of the former Tekke fortress into the ditch. He distinctly forbade troops to be used for burying the dead bodies, as this would be a source of infectious diseases and would "trouble the soldiers' hearts." He considered the destruction of the Tekke fortress of the greatest importance, and said "Gok-Tapa must be ploughed over."

After their rout on the 12th (24th) January, none of the Tekkes, who had retired into the desert and towards Askhábád, dared for four days to return to their families. On the day of the capture there had escaped, among others who had remained in the fortress, a Tekke named Háji-Murád, the same who, on the 7th (19th) January had fearlessly descended from the wall and had come to General Skobelev to negotiate. Concealed in a pit, he had remarked that General Skobelev had entered the fortress, and came out of his hiding place and begged for mercy. General Skobelev recognized him and promised him his life, but ordered him to be placed under arrest. Next day, the 13th (25th), Háji-Murád, on being examined, made the following statement:—*

After the armistice on the 7th (19th) January, the *Kháns* and *Isháns*, united in council, had resolved to resist to the last extremity. This decision was partly caused by the conviction that the Russians would not attempt to storm the fortress, and that, if they did so, they would be repulsed. From the 4th (16th) January, almost every day mounted Tekkes left the fortress, moving out in whole bands into the desert. All the rich people who had means of transport had already left the fortress to carry off their families and property, promising to return, but these promises had never been kept. After the negotiations, nobody was allowed to leave the fortress, and all damage done to the wall was promptly repaired under the direction of Taghma-Sirdár and the *Isháns*. Nobody noticed the making of the artillery breach during the night of the 11th, 12th (23rd, 24th) January, as they supposed that the shells were breaking up and doing no damage. When Colonel Haidaroff's column occupied the Mill *Kala*, a panic began in the fortress, and all were convinced that the storming would shortly begin. Then a mass of women and children rushed towards the gates of the north front. The heavy cannonade before the attack produced a panic among the men also; desertion began, and the springing of the mine terrified many and caused them to run away. Only the brave and those who had devoted themselves to death remained. The *Kháns* and *Isháns*, taking advantage of the confusion, ran away with the others. During the fight, Taghma-Sirdár's son was killed, and Hazrat-Kuli-Khán, one of the Council of Four, lost a foot. The retreat of the Tekkes was conducted mostly into the desert and to the wells of Ilek-Salesh. Háji-Murád further expressed his belief that the Tekkes would probably soon return for their families and submit completely.

* Deposition of Háji-Murád taken down by Captain Nedománski on the 13th (25th) January 1881.—*Author.*

On the 13th (25th) January, another Tekke, Ahwáz-Durdi-Khán, appeared in our camp. He also was arrested and questioned. He was a man of apparently 50 years of age, and was head of the Kír clan (about 500 families). On account of the feebleness of his health he had lost his influence, and Taghma-Sirdár had replaced him by Muhammad-Kuli-Khán of the Bagája clan.

From his statement* it appeared that the Tekkes would probably be found at their winter pasture grounds between Yegyán-Kazákh and Askhábád, and the mounted men probably at the wells of Bagája, 35 *versets* (23½ miles) north of Gok-Tapa, to protect the flocks which were at the wells of Kutlayák, Yervenk, and Yánik-Muhammad-Yár, 60 to 80 *versets* (40 to 55 miles) north of Gok-Tapa. Latterly many of the inhabitants of the places occupied by us had been living at the wells of Matir. At Askhábád there were hardly any people, and at Annau about 300 households.

Ahwáz-Durdi confirmed the opinion of Háji-Murád that the Tekkes were now only awaiting permission to return and make their submission, and explained that in the summer it was impossible to live in the desert, and further that, on account of the scarcity of land and water, it was impossible to settle on the Murgháb.

On the 15th (27th) January, Durdi-Murád, an inhabitant of Archmán, arrived at Gok-Tapa, and prayed for permission for 20 Archmán families, in whose name he had come, to return to their homes. He said that if the Russians did not allow the Tekkes to return to their lands, they would all perish, for the people of Marv had refused to give them land. The Commander of the Expedition gave the required permission for these families to return and occupy their land upon condition of their paying any tribute which he, General Skobelev, might fix, in return for which they would be put under the protection of Russian laws. General Skobelev subsequently ordered that without his permission no family was to be allowed to return, but that all who came in to submit should be sent to him to Askhábád. He also directed that no Yamúts from beyond the Atrak should be allowed to enter our territory, and that any deputies who might arrive with requests to settle in our territory were to be sent after him to Askhábád.†

On the 16th (28th) January, three of the enemy's horsemen were captured by our Cossacks and brought into camp. Two of them were Tekkes, and the third a Khivan merchant from Takhta-Bazár. One‡ of the Tekkes, Ana-Berdi, of Askhábád, had escaped from the fortress with the others on the day of the assault. He had seen Taghma-Sirdár retiring with his personal attendants, and had heard that he and Mahtum-Kuli-Khán had gone to Marv. All the common people (horsemen) had collected at the wells of Irband-Kui, not knowing whether to retire on Khiva or on Marv. No Kháns were there, as they had all concealed themselves. According to Ana-Berdi, he had been sent by the people to the Russian camp to find out what fate was reserved for them, what they were to do, and whither the Russians ordered them to go.

The Khivan, Khalli, explained that business matters had brought him to Gok-Tapa. On arriving at the wells of Irband-Kui [80 *versets* (53½ miles) to the north opposite Kárez-Nur-Verdi], he had found from 2,000 to 5,000

* Deposition of Ahwáz-Durdi-Khán taken down by Captain Melnitski on the 14th (26th) January 1881.—*Author*.

† Diary of the Combatant Section of the Staff of the Trans-Caspian Field Force, No. 21 of 1880, page 21.—*Author*.

‡ Depositions of two Tekkes and a Khivan taken down at Gok-Tapa on the 16th (28th) January 1881 by Captain Nedománski of the General Staff.—*Author*.

fugitives who had fled from Gok-Tapa after the assault. They had a few flocks with them. The Tekkes had asked him to accompany them as a deputy to the Russian camp.

The other Tekke belonged to the Gokcha tribe, which nomadises in the neighbourhood of Kumbetli, and which on the day of the assault had assembled near that place to the number of from 1,000 to 3,000 men for the purpose of marching on Marv. Their chief Kháns had run away, but the Elders, Az-Murád and Pulát-Khán had sent him to the Russian camp to give in their submission.

On hearing their stories, the General ordered all three to be released, and gave them a proclamation for distribution among the people and a letter requesting the Elders and plenipotentiaries to meet him at Askhabád where they would learn what he required of them.* Colonel Artsishevski was instructed to keep the Tekke families under a guard, and to let no one, who came to offer submission, enter the camp, but to order him to go to Askhabád.

The following was the wording of the proclamation by the Temporary Commander of the Troops to the people of Akhál:—

"I proclaim to all the population of Akhál-Tekke that by the might of the troops of the Great Tsár, my Sovereign, your fortress of Gok-Tapa has been captured and its defenders killed, but that the families both of those who have been killed and of those who escaped are now the prisoners of my victorious troops. I therefore invite all the remaining population of Akhál-Tekke to submit unconditionally to the mercy of the Emperor, and I promise that the lives, families, and property of all who submit shall be secured in the same way as those of all other subjects of His Majesty the White Tsár. On the contrary, all who continue to resist his victorious troops and persist in this foolish struggle will be exterminated as brigands and criminals."†

For the further conquest of the Akhál-Tekke *oasis*, a special force was formed under Colonel Kuropátkin. Its immediate object was the capture of Askhabád, and it consisted of—

Half a company of Sappers.
4th Battalion 82nd Daghistán Regiment.
1st and 3rd Battalions 84th Shirván Regiment.
1st and Rifle companies 13th Turkistán Line Battalion.
3rd company 5th Turkistán Line Battalion.
Division of Tver Dragoons.

2nd *Sotnia*, Poltava Cossacks.
2nd *Sotnia*, 5th Orenburg Cossacks.
1st *Sotnia*, 1st Orenburg Cossacks.
5th *Sotnia*, 2nd Ural Cossacks.
Orenburg Rocket Section.
4th Battery, 20th Brigade.
1st Division, 4th Battery, 1st Turkistán Brigade.
Horse Mountain Division.

Part of the heliographic detachment.

Total 15½ companies, 6 squadrons and *sotnias*, 12 guns and two rocket-troughs, in all 2,639 men and 965 horses.‡

This force had with it 14 days' supplies for the men, of which 4 days' were carried by the infantry, and 7 by the cavalry and artillery on the men or horses. There were also taken 240 rounds per rifle, of which 120 were carried by the men, a complement of ammunition per gun, *yulameikas*, *kibitkas*, bedding,

* Endorsement by the Chief of the Staff on the same deposition, dated 16th (28th) January 1881.—*Author*.

† The contents of the letter were as follows:—"By order of the General, I hereby make known that all the Elders of the people of Akhál with plenipotentiaries are to appear before him at Askhabád where they will learn the will of the Tsár as to their fate."—(Sd.) GEODEROFF, Major-General.—*Author*.

‡ In Appendix No. 82, see Return of the strength of the detachment directed to advance on Askhabád.—*Author*.

felts, men's kits, the field hospital of the 21st Division, the field hospital of the Red Cross, and part of the Engineer Park with a supply of dynamite. The heliographists had three heliograph stands and two Shpakovski lamps. To carry the baggage of this force were detailed 93 wagons of the Akhál-Tekke wheeled transport and 25 regimental wagons (120 men and 480 horses).*

So as to prevent the enemy from recovering himself and to hinder the organization of further opposition by prompt action, Colonel Kuropátkin's column marched from Gok-Tapa on the 15th (27th) January, and, according to the route issued to it, halted that evening at Kalajár, 13 *versts* (8½ miles) from Gok-Tapa. No enemy was met with on the road, but small mounted parties were seen retiring into the desert on perceiving the column. According to reports brought in by the scouts, there were no inhabitants at Askhábád or its environs, but that beyond the latter, at Annau, the inhabitants were still in their houses and were preparing to move to Marv.†

General Skobelev still remained at Gok-Tapa, meaning to catch up Kuropátkin's force before it reached Askhábád; but as the arrangement of affairs on the line of communications detained him longer than had been expected, Kuropátkin was ordered to halt on the 16th (28th) January at Kalajár. On this day the Temporary Commander of the troops received the following telegram from the Commander-in-Chief of the Army of the Caucasus in answer to his despatch reporting the capture of Gok-Tapa sent off on the night of the 12th (24th) January:—"I hasten to communicate to Thee the most gracious reply of His Majesty the Emperor." "St. Petersburg, 14th (26th) January, 12 noon. I thank God for the complete victory He has vouchsafed Us. Receive the assurance of My joy. I thank Thee for all the measures Thou hast taken, which have been crowned by such an important success. Convey My hearty thanks to all Our heroes; they have fully realized all My expectations. I promote General Skobelev, A.-D.-C., to full General, and have awarded him the Cross of St. George of the 2nd Class. Order him to submit the names of those who are to be rewarded quickly. *Alexander.*" "While joining my thanks to those of His Majesty, I congratulate Thee with my whole heart on the tokens of Imperial favour which have been so brilliantly gained by Thee. *Michael.*"

Soon afterwards a second telegram from the Commander-in-Chief was received in answer to a telegram from General Skobelev, giving details of the action of the 12th (24th) January. His Majesty the Emperor ordered the colour lost by the 4th Battalion Apsheron Regiment on the 28th December, 1880 (9th January 1881) and which the Commander of the Expedition had not permitted to be carried in parade by the battalion after the storming of Gok-Tapa, to be returned to it.

At 2 P.M. on the 17th (29th) January, the General with part of his Staff and an escort of 1½ squadrons of Dragoons left camp at Gok-Tapa, and in the evening joined the Askhábád Force, which, after a march of 15 *versts* (10 miles) from Kalajár, had bivouacked near the hamlet of Buzmein.

On the 18th (30th) January, Askhábád was occupied without opposition. No inhabitants shewed themselves there, thus confirming the reports which had been brought in by our scouts and the first Tekkes who had come in to make their submission. Immediately after the occupation of Askhábád, a cavalry column, composed of the Division of Dragoons and two *Sotnias* of Cossacks under

* General Order No. 40, dated 14th (26th) January 1881.—*Author.*

† Information gathered by Captain Baitokoff, from the reports of the scouts sent to Askhábád on the 11th (23rd) January 1881.—*Author.*

Colonel Prince Eristoff, was sent forward to Annau, 12 *vershs* (8 miles) further on. An hour after it had started, the 3rd Battalion 84th Shirván Regiment was sent forward in the same direction to form a support for the cavalry. At 6 P.M. all these troops returned to Askhábád. At Annau, only very few inhabitants were found, and these had come out to meet the troops, declaring their complete submission and complaining of the misdeeds of the Persian Kurds, who, hearing of our victory, had descended from their hills and had plundered the country.

Kurds had formerly lived at Annau, but a very short time before the Tekkes had driven them out and forced them to remove to Khurássán. This event had been preceded by a prolonged struggle. For a year and-a-half, Annau had been blockaded by the Tekkes, but the inhabitants had eventually been relieved by the Kurdish militia, the principal leader of which was the present ruler of Kuchán, Shuja-ud-Daula. He took the liberated people of Annau away with him and settled them round Kuchán. Later on, however, home-sickness seized them and they migrated back to Annau, where, in the meantime, Tekkes had settled. Shuja-ud-Daula managed to stop them on the way and bring them back to his *vildyat*, but they again attempted to migrate, and then the Governor, despairing of success, handed them over to the Governor of Khurássán, who settled them in the District of Jám. From here, however, they migrated to Kálta-Chinár saying, "if we cannot live in our fatherland, we shall at least be able to look upon it."* Shuja-ud-Daula had warned us that directly we had pacified the *oasis*, the former people of Annau would request to be allowed to settle in their old homes, and, sure enough, on the arrival of Prince Eristoff at Annau, a deputation of them from Kálta-Chinár appeared before him and requested leave to return to their homes. "Day and night we have cried to and beseeched Almighty God that He would permit the mighty and victorious White Tsár to conquer Akhál," they wrote. "Praise be to God, our cries have gone up to Him, and you have been ordained to defeat this band of brigands, at which we unfortunates are greatly pleased." General Skobelev gave them permission to return and promised them temporary protection.†

At Annau information was also gathered to the same effect as before, *viz.*, that the greater part of the fugitives from Gok-Tapa were in the sands to the north and north-east and principally in the neighbourhood of the wells of Ilel-Salésh.

At the same time General Skobelev received the following declaration at Askhábád from the notables Kubadár-Sirdár, Mulla-Berdi, Ováz-Kuli-Sirdár, Sahhát-Murád and others:—"Be it known to all the Sirdárs and Generals of the White Tsár that the Tekke people having no idea of their own weakness, resisted the will of the mighty White Tsár and were punished in consequence. Now the poor people desire to make their submission. They have no *kibítkas* to live in and nothing to support life on. If you will graciously permit them to return to house and home, some of them will appear before you to make complete submission and swear fidelity. At present they fear you. If in reply to this you send a letter telling the people not to fear but show themselves, they will at once come in."

General Skobelev did not altogether believe in the sincerity of this letter, but made use of it for the pacification of the country,‡ and replied on the

* Annau is visible from the mountains round Kálta-Chinár.—*Author*.

† Telegram from General Skobelev to the Commander-in-Chief of the Army of the Caucasus, No. 452, dated 20th January (1st February) 1881.—*Author*.

‡ Telegram from General Skobelev to the Commander-in-Chief of the Army of the Caucasus, No. 412, dated 18th (30th) January 1881.—*Author*.

19th (31st) January as follows:—"In answer to the letter sent to me, I inform you that the troops of the powerful White Tsár have not come here to destroy the people of Akhál, but, on the contrary, to pacify the country and restore peace and quietness, wishing it to be well off and rich. If the Tekke inhabitants from the oldest to the youngest come to me or send their representatives, they will be received by me. The White Tsár is great! His everlasting power is invincible! His mercy is inexhaustible! You know all this by experience."*

The first to answer General Skobelev's summons were the Elders of Kizil-Arvát, Sufi-Khán and Khudai-Verdi-Khán. "After deepest reverence," they wrote, "to our *sirdár* and general, the people of Kizil-Arvát send the following message. The inhabitants have no hostile feeling towards you. We think you great Elders, now, oh! White General! thou art our Commander. Have mercy on the people, who will, for ever, fulfil thy commands."

According to the men who brought the letter from Sufi-Khán and Khudai-Verdi Khán, the people were collected at Ilel-Salésh and were awaiting the decisions of the Russian Commander. General Skobelev replied firmly but mildly, and sent a force to Ilel-Salésh not only with perfectly peaceable objects, but even provided with money to open a bazaar and draw the peaceably disposed towards us.

After this, notables, of more or less influence amongst the people who had opposed us, began gradually to arrive at Askhábád. One of the first of these was Ováz-Kuli-Sirdár, a noted leader of Tekke raids.† The commander of the troops received them with flattering words and rewarded some of the more influential ones with medals and robes of honour. Ováz-Kuli-Sirdár and Muhammad-Aman, son of Muhammad-Atálik, who had been killed, were the first to receive medals. After that the Tekkes began to arrive gradually both at Askhábád and at Gok-Tapa, and on the 22nd January (3rd February) a body of about 1,000 men appeared at Kuhna (Old) Gok-Tapa and sent nine deputies to Artsishevski asking for pardon and for bread. Artsishevski selected one man out of ten, and sent these on to Askhábád to General Skobelev, forbidding the rest to leave Kuhna (Old) Gok-Tapa till General Skobelev's answer had been received.‡ The reply of the General was favourable, and the Tekkes were permitted to settle in their old homes.

In view of the large number of people who were coming in, General Skobelev's first order as to sending them all to Askhábád had to be modified, and Artsishevski was authorized to give the Tekkes permission to settle on their former lands. The Elders of the village of Buzmein were the first to receive this permission and were the first to assemble their families and settle down.

Artsishevski was also ordered to enter into negotiations on his own account with the fugitive population. General Skobelev desired that the country should be pacified by the end of February, so as to enable the numerous fields to be ploughed up and new ones to be irrigated in the beginning of spring, and it was proposed to bring Persians to superintend the fields and arrange for their

* Telegram from General Skobelev to the Commander-in-Chief of the Army of the Caucasus, No. 440, dated 19th (31st) January 1881.—*Author*.

† The list giving the calling of those who came in to make submission, is interesting:—(1) Ováz-Kuli-Sirdár, raider, (2) Daulat-Murád and Muhammad-Murád, traders with Persia, where they sold horses, (3) Durdi-Khwája, raider, (4) Khwája-Muhammad, agriculturist formerly a raider, (5) Kertik, boot-maker and an occasional raider, (6) Ováz-Verdi and Khalla-Saat, agriculturists and sometimes raiders, &c., &c.—*Author*.

‡ Report from Artsishevski, No. 143, dated 22nd January (3rd February) 1881.—*Author*.

irrigation, receiving as a return half of the crops.* The General was especially anxious that the shots fired on the 12th (24th January) should be the last of the war and wrote: "This is in my opinion a matter of the first importance in all respects. We have to deal with an honourable and brave people. We shall derive great advantage from it if we understand how to keep up our undoubted and dearly purchased military prestige, and if in introducing our laws we do not, as everywhere else, place everything on a bureaucratic footing."† Besides, he doubted whether we should succeed in avoiding a second period of opposition; but the latter would be all the weaker in proportion as the more people were induced to resettle on their former lands, and the more the Russian authorities succeeded in giving actual proofs of the honourable observance of their promises and of their capabilities for preserving order in the country. "A new time and one of complete equality and inviolability of property for the inhabitants will begin as soon as they have received our laws," he said. "According to the spirit of Russian policy in Central Asia, there are no *pariahs* there, and therein lies our strength against England. Unfortunately, the offensive manners of single men do not always agree in practice with our great principles, the origin of which may be traced back to those on which the principality of Moscow was established. By following these principles, the Russia of the period before Peter the Great has expanded eastwards, and now too our strength lies in them. The sooner an end is put to the military terrorism and despotism in our rear, the better for Russian interests."‡

"All our expeditions in Central Asia during the reign of the Emperor Alexander II. may be divided into two periods. The first was one of comparative glory and ease, when our troops fought with the organized force of the Central Asian rulers, defeated them and crumbled into dust the senseless, despotic rule by fear which had endured for centuries. Overburdened with endless taxes and with their moral force quite broken down, the people had become indifferent to the course of events. Thus it was in 1866 before Irjár, in 1868 at the taking of Sámarkand, in 1873 before Khiva, and finally in 1875 at Makbrám and Khokand. In all these actions we took dozens of guns and flags, occupied the capitals, concluded treaties with the defeated Amirs and Kháns, and even sent numbers of Diváns to European Russia. All appeared to be finished; a period of peace had begun, and, strange to say, the threat of a popular rising took us each time unawares. Six months after Irjár [5th (17th) May], there followed in October the bloody storming of Jizák and Ura-Tapa. After the capture of Sámarkand in May there came the heroic defence of its citadel and the combat of Zar-i-Bulák on the 4th (16th) June 1868. Six weeks after the capture of Khiva came the action on the Chandir, and General Kaufmann's Turkumán expedition. Finally, in 1875, after the conclusion of the treaty of Marghilán on the 20th September (2nd October), there followed on the 1st (13th) October the outbreak of a popular war which was obstinately prolonged till the final conquest of the Khánate of Khokand in February 1876."

"On enquiring into the causes of such constantly recurring events in our dealings with the Central Asian Khánates, we may apparently conclude:—

"(1) In all these wars the people, overburdened as they were with taxes, were secretly in favour of any change, and did not wish to fight with

* Letter from the Chief of the Staff, No. 311, addressed to Yakhia-Beg-Tairoff at Bujnurd.—*Author*.

† Diary of the Administrative Section of the Staff of the Trans-Caspian Field Force, No. 22 of 1880.—*Author*.

‡ *Ibid.*—*Author*.

the Russians, leaving this duty to the *sarbazis* of the Khán for the maintenance of whom they everywhere paid a heavy tax, 'the *sarbáz-puli*,' besides other heavy dues aid on them in spite of the *Shariat*. Khudayar-Khán of Khokand is an instance of how far and to what a pitch of artfulness a Central Asian ruler may go in such matters.* Distress and the desire to be freed if only temporarily from oppression deadened the manifestation of religious hatred towards the unbelievers;”

“(2) on the arrival of a period of peace, the country, freed by us from the rapacity of the Kháns, very quickly fell under the exclusive influence of the priests who were hostile to us, and who succeeded in stirring up the fanaticism of the people. A holy war then began, a war in which every Mussulmán took part against the unbelievers, and not in the name of the Khán, but in the name of religion. It was very natural that this period of the war should always be the most prolonged, and more bloody than the first campaign against the ruler.”

“This peculiarity is common to all the Khánates of Central Asia. The events of the Afghán War, the flight of Shir-Ali-Khán to Mazár-i-Sharif, the murder of Cavagnari, and all the subsequent phases of the war distinctly bear this character.”

“With the free Turkumáns, who recognized no authority, we had at once entered upon the second of those periods, as was shewn by the proclamation of a holy war at Gok-Tapa as soon as the Russian troops occupied Bámi in June 1880.”

As for the families in Gok-Tapa, the Temporary Commander of the Troops deemed it advisable to detain them some time longer, “but on the express condition that their detention should be made as light as possible, and that a proper, though not too luxurious, amount of the captured supplies should be issued to them.” “Although it is difficult, they must be fed,” wrote General Skobelev to Artsishevski. “Nothing must tarnish the name of the Russian Emperor in the business entrusted to me. I have decided that they are to be kept from want and supplied with suitable rations as may be required.”

Colonel Artsishevski was also ordered to issue *kibitkas* to them, to make preparations for affording them every kind of medical aid, and to prevent outrages being committed on them. Commanding officers were ordered to impress upon their men that mild treatment of the vanquished was now their duty.† “I request your close attention,” wrote General Skobelev to Artsishevski, “to the necessity of maintaining the strictest discipline among the

* The following estimate of the taxes imposed at the time of the entry of our troops into the Khánate of Khokand is interesting:—(a) Land tax or *khiráj*, $\frac{1}{3}$ of the produce of each *tanap*, or $\frac{1}{4}$ of each Russian *desyátina* of lucerne; from vineyards or melon-beds even more; average about $1\frac{1}{2}$ roubles per *tanap*. (b) The canal tax, very undefined, although a matter of vital importance for the people: it depended upon the Bek, and may be estimated at 1 rouble per house. (c) *Yiol-puli*, from 70 *kopecks* to 1 rouble per head. (d) *Tajai* or bazaar tax, 20 *kopecks* per *araba* load of supplies brought in. (e) Weighing-house duty (in Khokand, for example, this produced 7,000 roubles in one financial year). (f) Bazaar tax on cattle, 5 *kopecks* per sheep, 15 *kopecks* per horse or cow, 20 *kopecks* for each camel brought into the bazaar. (g) *Dukhán-puli*, 15 to 30 roubles a year on each shop. (h) *Sarai-puli*, 20 *kopecks* per camel. (i) *Ziakát* on goods sold, one *tilla* on every 40 (1 *tilla* = 2 paper roubles). (j) *Ziakát* on cattle, one sheep out of forty; other animals at an arbitrarily fixed rate. (k) *Nikakhána* and *Tarakhána*, taxes on weddings and funerals. (2) *Ziakát*, on ready money, 1-40th part. (m) Taxes on boats; this gives 20,000 roubles in the financial year in the Khánate. (n) Tax on baths. (o) Tax on workshops at an arbitrarily fixed rate.—*Author*.

† Letter from General Skobelev to Artsishevski, No. 442, dated 19th (31st) January 1881; instructions to him, Nos. 343 and 515, dated 16th (28th) January and 22nd January (3rd February) 1881.—*Author*.

troops with respect to their treatment of the inhabitants who come in to make submission. The experience of many such periods in Central Asia as that through which we are now passing has convinced me that to keep the troops in order, after they have temporarily been allowed to loot, is a very difficult matter. It is necessary that commanding officers be thoroughly convinced of the necessity of forcing the troops to keep order, and of at once repressing the inclination to play pranks when circumstances have radically changed. Imperial interests demand that the country be pacified as soon as possible, and that the inhabitants should return to their peaceful occupations. This will in the long run improve the position of those troops who will have to pass the summer in the *oasis*.*

The troops were reminded that in Central Asia it is the custom, when people are making their submission, for them to appear in torn garments, in which the most influential people are often disguised; and that, therefore, it was necessary to be very careful in their relations with the Tekkes so as not to insult any of their men of mark.†

"In my military experience," said General Skobelev, "I have three times lived through a period of most terrible want among the people in winter; in 1876 at Ike-Su-Arási‡, in January 1878 between the Maritsa and the Bosphorus, and finally now. If no help is given, many must perish. It is a consolation that the recollection of a terrible year is a pledge for the prosperity of a country for a long time, and is the best damper to religious fanaticism and to the popularizing of war."

General Skobelev ordered the most influential families to be helped largely, so that there should be at least a small number of people who had felt good from the power of Russia. This was also within our means.§ In these matters it was taken as a guiding principle that what we had captured was military booty; what the inhabitants found in the ground and in the buildings became the property of those who had made their submission. In consequence of this, foraging parties into the localities whose inhabitants had submitted and returned to their homes by official permission were put a stop to. The first of those fortunate places was Buzmein. In the examination of all disputes as to possession of property, General Skobelev forbade any one to interfere, leaving the communes to settle them as best they could. He pointed out, however, once and for all; and everybody not only in the *oasis*, but also in Persia, knew that anything (except human beings) taken possession of anywhere and by anybody before the 12th (24th) January 1881 became the property of its captor, and that this date marked the change from the old to the new order of things. Without this decision, a period of endless disputes between the Tekkes and the Persian would have commenced.

The state of the inhabitants was one of the deepest poverty, but, after their becoming settled in their former homes, it was partially relieved, as they could take advantage of their property previously buried. As stated above, Artsishevski had been authorized, in the name of the Temporary Commander of the Troops, to give permission for people to settle at a given place, while at the same time to strive to avoid giving this authorization to individuals. He was given

* Instructions from General Skobelev to Artsishevski, No. 476, dated 21st January (2nd February) 1881.—*Author*.

† General Order No. 47, Trans-Caspian Field Force, dated 22nd January (3rd February) 1881.—*Author*.

‡ During the Khokand campaign. Ike-Su-Arási (between the rivers) is the country between the Nárin and the Kara-Daria.—*Author*.

§ Instructions from Skobelev to Kuropátkin, No. 761, dated 24th January (5th February) 1881.—*Author*.

instructions that those who came and were evidently provided against want, though only in a certain degree, were to be settled in the places where they had lived before the war, or, if they desired it, they were to be provided with authorization; those who came back in a state of poverty, but still in possession of a few cattle, were also to be authorized to settle and sent as soon as possible to their lands; while, finally, those in a complete state of destitution were to be given *kibitkas* or old felts, flour, maize, &c., and sent to the places formerly occupied by them, or to new ones, as they might desire.

General Skobelev had expressed a desire to disarm those who returned, but did not particularly insist upon this, and did not alarm the people. "Let the arms be taken away from those who make their submission" were the instructions which had been given to Artsishevski.* "You know my views upon the disarming of the people in Central Asia," he wrote to Kuropátkin; "I quite agree that we must take advantage of such a moment as this, but one must not build one's house on such a foundation. Declare then as soon as you perceive a readiness to give up their arm, that it is forbidden on pain of severe punishment to carry such, and that the White Tsár will defend them."

The Commander of the Expedition desired that our authorities should treat the returning population honourably, and, where it was advantageous to us, magnanimously also. In particular he warned them against establishing official processes as to land-law or incurring bureaucratic delays. Asia would not suffer such things. "With all that," he wrote to Artsishevski, "however calm the rainbow on the horizon may be, you must act with all precautions. Remember Prince Békovitch-Tcherkáski, Lieutenant-Colonel Rukin, and finally, in our own days, the bloody affairs on the Chandir on the 15th (27th) August 1873. Do not forget that the situation in Central Asia changes not in an hour, but in a minute. Precautions, precautions, and again precautions! Do all you can to lighten the lot of the unhappy population. Russians do not hit men when they are down."

In questions regarding the settlement of the population, it was forbidden, without General Skobelev's express orders, to consult Zulfagar-Khán, as this might damage our prestige in the eyes of the natives; in future also still greater disadvantages might ensue from such precedents. The greatest care was to be taken that *Jigits* and other natives in our service did not, under pain of death, take bribes from the people or commit excesses. No indulgence was to be shown to the Persian Kurds, masses of whom, seeing their way to gain, had come into the Russian camp at Gok-Tapa. Many of them, instead of working or trading, occupied themselves in unearthing the treasures of the Turkumáns, and in plundering; and when they met disarmed Tekkes, inferior to them in numbers, they abused them basely. In a letter to the Temporary Commander of the Troops, among other things, Artsishevski said:—

"The Persians are worse than the Tekkes. They are plundering on the Garmáb road, and four of them have been caught already."† Upon this an order was given to bring these four before a court-martial, and to proceed in a similar manner with all marauders and brigands."

Towards the end of January, all the people who had returned from Sámurskoye to Koj were at first temporarily placed under the orders of the Road Commandant of the Bámi-Sámurskoye line and the Station Commandants at Bámi

* Instructions to him, No. 514.—*Author*.

† Letter from Artsishevski to General Skobelev, dated 21st January (2nd February) 1881.—*Author*.

(for the villages of Bámi, Burma, Kizil-Chashma, Zau, and Koj), Archmán (for the villages of Archmán, Suncha, and Murcha), Durun (for the villages of Durun, Begerden, Karagán, Karéz, Kalát, Megin, Akh-Tapa, and Yarája), Samurskoye (for the villages of Yegyán-Bátir-Kala, Kari-Karéz, and Káfir-Kala), and Kizit-Arvát (for Kizil-Arvát). In the instructions given to the Road Commandant it was laid down:—

"1. The commandants are the immediate protectors of the population. They verify, by the authorization issued by the commanders of the advanced forces, the number of people allowed to settle. They nominate Elders in each *aul*, and provide them with warrants of their appointments. Interior order in a village is to be maintained by the Elder, and to assist him in this some *Jigits* are to be raised, as a police force, among the local inhabitants according to the number of the latter. The whole village is responsible for any act of brigandage committed on its land.

"2. The inhabitants have the right of occupying their own houses and lands, but some fields are to be told off as kitchen-gardens for the garrison.

"3. The inhabitants are to be treated mildly and kindly, and nothing is to be taken from them without payment. All acts of marauding are to be treated according to military law.

"4. The arms of the inhabitants are to be given up.

"5. In the event of brigands being captured with arms in their hands, they are to be brought before the authorities."

General Skobelev appointed officers to manage the civil and police administration, and gave the following instructions to Major Spolatbeg, who was appointed to take charge of the returned population at and near Gok-Tapa*:—

"Considering the Akhál-Tekke *oasis* as finally pacified, I make the following regulations:—

1. The whole land is to be declared to belong to the Crown. According to the *Shariát*, land belongs first to God and then to the Sovereign or the conqueror. In Asia it is usual for conquerors to leave the land to the conquered people, only laying a tax on them, and we shall follow this custom; the inhabitants may occupy the land which before belonged to them. This decision, however, only holds good for small proprietors who cultivate their own land; such land is not to be given away to strangers. We shall not allow of large proprietors who let out their land on leases, as by this means such men might form a party of their own. The lands therefore of such men as Mahtum-Kuli-Khán, who owns Kalát and Karéz, are to be confiscated. We must accordingly have some data as to how much land is required for the agricultural population.

2. The sooner the people are settled in their homes with their property and cattle the better for us, for then, if necessity arises, we shall be able to get at their most susceptible part—their pockets.

3. The people are to be disarmed, but I do not insist upon forcible disarming. The inhabitants have now lost their heads and will willingly give up their arms, so we must take advantage of the moment.

* Instructions to the Road Commandant of the Bámi-Sámurskoye line, dated 27th January, (8th February) 1881, No. 55.—By orders issued on the 18th (30th January) all people caught with arms in their hands were to be shot, and according thereto two Tekkes taken with arms in their hands were shot by the commandant of Archmán. On the 26th January (7th February), however, this order was rescinded, as the *oasis* was, generally speaking, then quite peaceful.—Instructions to the Road Commandant on the Bámi-Gok-Tapa line, dated 26th January (7th February) 1881, No. 54.—*Author.*

4. A beginning must be made of an administrative division into communes, the settled ones under *aksakáls*, the nomad ones under *vólosts*.

5. A list is to be laid before me of the persons proposed for *aksakáls* (three candidates in each commune). I prefer that in such lists men who have been to Mecca (*Hájis*) should not be included. One or two assistants to each *aksakál* should be nominated according to the size of the commune. The *aksakáls* will be our officials, and therefore they are to receive pay, but not exceeding 300 *roubles* a year. These sums are at first to be paid out of the extraordinary expenditure. Their assistants are to be respectable persons, who will serve without pay.

N.B.—*Aksakáls* will wear special robes, which will be sent to them.

6. *Mirábs* are to be appointed to regulate the water-supply. A large stream is to have a special *miráb*, but one such official may superintend several smaller streams. These are to be nominated as soon as possible, for the question of water-supply is one of the first consequence; and by putting the dams and *karézes* in order, we shall perform an act of benevolence to the people. This measure is especially important. The pay of a *miráb* will be from 300 to 600 *roubles*, according to the amount of water in his charge. The relations between the *aksakáls* and the *mirábs* are not to be strictly defined. Such a state of matters will awake emulation between them, which will be to our advantage.

7. It is proposed to divide the population of the *oasis* into four circles—(a) Bámi, from Kizil-Arvát to Archmán, inclusive; (b) Durun, from Suncha to Kari-Karéz, inclusive; (c) Gok-Tapa, from Yegyán-Bátir-Kala to Buzmein, inclusive; and (d) Askhábad, from Buzmein to Gávárs. Will such a division break up tribal connections? The superintendent of the circle will have a native assistant and a staff composed of an interpreter and a *mirza*.

8. To diminish the influence of the priests, I have considered it necessary to confiscate temporarily all *wakuf* lands to Government until some property laws are established. This was done in Turkistán, where the rights of ownership have not yet been established. We shall not abolish *wakuf* lands, but we shall defer the question, and demand documents to support claims, &c., &c. This measure will enable us to settle people well disposed to us on these lands.

9. The question of obligations and taxes must now be settled. I prescribe only one obligation, *i.e.*, that of military service.* The amount of taxes must be regulated by the number of soldiers furnished by the population. At present we do not require soldiers from them, and therefore the taxes should be a maximum, $\frac{1}{5}$ of the total income as allowed by the *Shariát*. By raising such taxes, we take upon ourselves the responsibility of the preservation in repair of the roads, bridges, &c.

The taxes will be:—*Khiráj* (a tax on the produce of the land); the *tanap* tax (a tax on the extent of land under cultivation); a *ziakát* on cattle, and a *ziakát* on the right of trading. No other taxes, although allowed by the *Shariát*, are to be raised. To ensure the *tanap* tax being properly applied, an administrative survey will be made of the land, and measures taken to increase the number of surveyors. The date for the payment of the *khiráj* and *tanap* will be in August, that for the *ziakát* taxes in May. As for the taxes on trade, they will not form a large item in the budget of Akhál-Tekke.

* "Do not touch upon the question of freedom from military service," wrote General Skobelev to Kuropátkin, "for the Tekkes are such brave fellows that to take a few *sofnias* of such cavalry up to the walls of Vienna would not be a bad thing."—Instructions, No. 761, dated 24th January (5th February) 1881.—*Author*.

10. It must be explained to the inhabitants that a contribution will be laid upon them. Nothing has as yet been fixed as to its extent, and they may be absolved from it if they serve us faithfully in future. By retaining our right of laying a contribution on the inhabitants, we shall have great influence over them.

11. A list is to be made of the influential personages among the priesthood and laymen, with a character of each.

12. Efforts are to be made to find out what parties exist among the population, and what part these play.

13. It is desirable to have *Tekke Jigits*.

14. Persons performing duty and *Jigits* may carry swords.”*

The administrative body consisted of Major Spolathog, Lieutenant Murávieff of the Daghistán Regiment as Secretary, Ensign Yarchenko of the Shirván Regiment as Secretary, Ensign Sultánoff as translator, and Margani, a native of the Caucasus, as interpreter. General Skobeleff constantly repeated, “Have as few Russian officials as possible in Asia, but those must be demi-gods.”

To clear up the situation and ascertain whether a large number of the Tekkes were still in the desert, and also with a view of inducing them to return peaceably to their homes, or, if they refused, of finally annihilating them, the Temporary Commander of the Troops sent a force into the desert under Colonel Kuropátkin. The latter was also ordered to provide these fugitives returning to their homes with authorization to protect them from violence on the part of the troops. In order to “silence those who had preached a holy war, and who had already compromised themselves gravely by their obstinacy on the 12th (24th) January, and to quiet the people,” General Skobeleff forbade anything whatever being taken without payment (except land for camping and water).

Colonel Kuropátkin’s force, which left Askhábád for Izgand on the 21st January (2nd February), consisted of the following troops†:—

A section of Sappers.

3rd Battalion 84th Shirván Regiment.

1st and Rifle Companies, 13th Turkistán Line Battalion.

3rd Company, 3rd Turkistán Line Battalion.

Division of Dragoons.

2nd *Sotnia*, 5th Orenburg Cossacks.

1st *Sotnia*, 1st Orenburg Cossacks.

5th *Sotnia*, 2nd Ural Cossacks.

Rocket Section, 1st Orenburg Cossacks.

1st Division, 4th Battery, 1st Turkistán Artillery Brigade.

Horse Mountain Division.

Total, $7\frac{1}{2}$ companies, 5 squadrons and *sotnias*, 4 guns, 2 rocket-troughs, and a heliograph.

The train of the column consisted of the camels of the Turkistán detachment and 30 wagons of the wheeled transport.

To reinforce Colonel Kuropátkin’s force, a column under Lieutenant-Colonel Haidaroff was despatched on the 21st January (2nd February) from Gok-Tapa,

* Instructions from General Skobeleff to Spolathog, No. 979, dated 5th (17th) February 1881.—*Author*.

† Report from Officer Commanding Turkistán Detachment to the General Officer Commanding, No. 517, dated 13th (25th) February 1881.—*Author*.

also on Izgand. It consisted of the 1st and 3rd companies Sámur, 12th company Apshevon, and 9th company Stávropol regiment, 2nd *sotnia* of Taman and 5th of Laba Cossacks, division of the 6th battery, 21st brigade and 2 rocket-troughs,—in all 4 companies, 2 *sotnias*, 2 guns and 2 rocket-troughs.* These troops had with them a complement of cartridges and artillery ammunition, ten days' supplies for the men, seven days' supplies for the horses, transport for water for two days, bedding-felts and fur-coats.†

Both columns were to arrive nearly simultaneously at Izgand, and Haidaroff was then to put himself under Kuropátkin's command.‡ To provide against the event of a support having to be sent out for the columns, a reserve of 4 companies, a *sotnia* and 2 field guns, with five days' supplies, was kept ready at Askhábad.§

At 8 A.M. the advanced guard of Kuropátkin's column, consisting of the divisions of dragoons and of Turkistán Cossacks with 2 rocket-troughs, marched, followed by the main body with 5½ companies, 4 guns, and 3 sections of Cossacks.|| Only the carts, &c., with the men's cooking utensils, the cart with the sappers' tools, and the wagons of the Red Cross Society marched with the main body, the rest of the baggage following in rear under escort of two companies and a section of Cossacks.

At 15 *versts* (10 miles) from Askhábad¶ the detachment was sent by a deputation of the Bakhshi-Dashayak tribe of Turkumáns with their Elder, Kubadár-Khán, at their head. Having declared their submission, the deputation, according to Eastern custom, requested that the advance of the column might be stopped, saying that there was a danger that, on the appearance of the Russians, the people who were ready to make their submission might run away. In reply to this Kuropátkin ordered Kubadár-Khán to ride at once to Ilek-Salésh, and warn the people that the troops would arrive next day at those wells, and that it depended upon the people themselves whether we treated them as friends or as enemies. Kubadár-Khán departed, expressing a hope that he should succeed in persuading the people to receive us peacefully. The Tekke next in order of rank to him was sent off to General Skobeleff.

Moving in the appointed direction at 7 P.M., the advanced-guard reached Izgand, having marched 42 *versts* (28 miles), and there pitched camp. Lieutenant-Colonel Haidaroff, who had only had 14 *versts* (9½ miles) to march, had already arrived there. The main body only came up at 1 A.M., and the baggage at 6 A.M. next morning. As the road was partly over waterless sand-hills, Kuropátkin as soon as he had arrived at Izgand had taken the camels from Haidaroff's column, and, loading them with water-barrels, had sent them to meet the wheeled transport.

The same evening another deputation of chosen Tekkes appeared before Kuropátkin,** offering the submission of the inhabitants of the settlements between Kizil-Arvát and Askhábad, and repeating the request that the advance

* The guns were carried on camels on account of the want of horses, as were also the rocket-troughs and rockets. — Letter from Artsishevski to the Commander of the Expedition, dated 21st January (2nd February) 1881.—*Author*.

† General Order to the Askhábad detachment, dated 20th January (1st February) 1881.—*Author*.

‡ Instructions to Artsishevski, No. 443, dated 19th (31st) January 1881.—*Author*.

§ Instructions to the Camp Commandant at Askhábad, No. 462, dated 20th January (1st February) 1881.—*Author*.

|| Report from the Officer Commanding Turkistán detachment, No. 517.—*Author*.

¶ Report from Colonel Kuropátkin to the Commander of the Expedition, No. 260, dated 21st January (2nd February) 1881.—*Author*.

** Letter from Colonel Kuropátkin to General Skobeleff, No. 124, dated 22nd January (3rd February) 1881, 10 A.M.—*Author*.

of the column might be stopped. Colonel Kuropátkin refused this, and sent the greater number of the deputies back to invite the inhabitants to return to their homes. He also explained to them that by the immediate fulfilment of his orders, and by the number of arms given up, they would show the sincerity of their submission, and they would then receive pardon all the sooner from the General Commanding, on whom depended their punishment for their raids and the amount of their future tribute.

After this, and during the night, information was collected from the Tekke representatives as to the wells and as to the positions and intentions of the fugitive population. This information, supplemented by that given by the guide of the force, Oráz, a Khivan, who had long lived in those parts, soon proved the incorrectness of all the information that which had been collected at Askhabád. The greatest error had been made with regard to the distances on the road from Izgand to the wells of Ilek-Salésh. According to the Tekkes, the road to Ilek-Salésh was very difficult, as it runs past the dry wells of Mergin, and is reckoned at from two to two and-a half marches for mounted men. The road for pack animals to the same place lies through Kuhna (Old) Gok-Tapa, where it joins the great caravan route to Khiva, along which it is three days' march from Kuhna (Old) Gok-Tapa to Ilek-Salésh. Besides, according to the map drawn up by Kuropátkin from inquiries made, it appeared that to the east of the route to Ilek-Salésh there branches off another road to the wells of Nazargul (1 march) and Suyek [40 to 50 *versts*, (26½ to 33½ miles).] According to the deputies, some of the people with Sufi-Khán were at Nazargul, and the rest were with Taghma-Sirdár between Ilek-Salésh and Nazargul. All were suffering from cold, hunger, and insufficiency of water, and the greater number sincerely wished for peace unconditionally, and only a small minority, with Taghma-Sirdár, Mahtum-Kuli-Khán, and Kurbán-Murád-Ishán, desired to retire to the Tajand. During the examination* one of the deputies, by name Mát-Murád, said:—"It is known to everyone that no people ever conquered and ruled the Tekkes. Although we knew that the troops of the mighty White Tsár would defeat us at any cost, we fulfilled our duty and fought for our country and faith. Now all is over, and the time has come for unconditionally submitting to the White Tsár who has conquered us by force, and for obeying the orders of the commander of his brave troops."

Upon receipt of all this information, Kuropátkin did not think it possible to continue his march on Ilek-Salésh next day, and decided to clear up the situation by reconnaissances towards Nazargul and Kuhna (Old) Gok-Tapa in order to gather more detailed information as to the abovementioned routes. With this object two flying columns were sent out at 9 A.M. the next day, the 22nd January (3rd February). One of them, consisting of four *sotnias* (the Turkistán division and the *sotnias* of Taman and Lába Cossacks) and four rocket-troughs under Lieutenant-Colonel Gulyayeff, was to move on the wells of Nazargul. Its orders were to reach them, to encourage the people met with to return to their homes, and to collect information as to the routes to the wells of Suyek-Karaja. Gulyayeff was ordered in no case to fight, but to return to camp at Izgand. This column had, therefore, to make a march, there and back, of from 50 to 80 *versts* (33 to 53 miles). The other column, under Lieutenant-Colonel Mohrenschild, consisting of the division of dragoons and the *sotnia* of the 5th Orenburg Cossacks, had, besides the same mission

* Letter from Captain Baitokoff to General Skobelev, dated Izgand, 22nd January (3rd February) 1881.—*Author*.

as was entrusted to the first column, to move to the hamlet of Kuhna (Old) Gok-Tapa and examine its environs. The total length of its march was therefore from 30 to 50 *versts* (20 to 33 miles). *Jigits* were also sent out to examine the direct road from Izgand to the wells of Mergin on the evening of the arrival of the troops at Izgand.

Lieutenant-Colonel Mohrenschild's column having completely fulfilled its mission returned at 7 P.M. Kuhna (Old) Gok-Tapa was found to be deserted, the distance from Izgand being 15 *versts* (10 miles). The road to it ran partly over low sand-hills, and partly over hard ground. The Tekkes met with on the way (about 1,000 men) had been promised pardon, and a few arms of different kinds had been taken from them.

The *Jigits* who had been sent towards Mergin returned a little later, and stated that the road through this place to Ilel-Salésh was very difficult, and that the route by Kuhna (Old) Gok-Tapa would have to be followed. The route to Mergin was covered with the corpses of Tekkes who had perished from thirst and cold, and the people gathered near Ilel-Salésh were suffering severely from using salt water. The wish for peace on any conditions was general. Not only were those who had fled with 'Iaghma-Sirdár preparing to return at once on hearing of pardon being offered, but even the Kháns of Marv intended to send deputies with requests for mercy.

Lieutenant-Colonel Gulyayeff returned at 6 P.M. next day, the 23rd January (4th February) to Izgand, having marched 98½ *versts* (65½ miles). Passing the wells of Koján and Khairábád, he, with the help of a captured Tekke, had marched straight on the wells of Buyus-Pulát, and at midnight had reached those of Nazargul. Here he found 300 *kibitkas*, which he surrounded; but, on receiving the proclamation, the Tekkes at once declared their submission, and began to surrender their arms. After passing the night at Nazargul, the column returned to Izgand, having directed all the Tekkes they met with to proceed to that place.

Before the return of Lieutenant-Colonel Gulyayeff, the commander of the detachment, in view of the information received by him, had resolved to march at 10 A.M. to Kuhna (Old) Gok-Tapa. On the 23rd January (4th February) he* left Izgand, leaving in its temporarily the 3rd Battalion Shirván regiment, the division of dragoons, and two horse-mountain guns under Major Sivinis, who was to return with his column on the 25th January (6th February) to Askhabád. Kuropátkin thought it necessary to send back these troops in view of the want of camels and of means for carrying water for further operations in the desert. Gulyayeff's column having passed the night of the 23rd January (4th February) at Izgand, arrived at Kuhna (Old) Gok-Tapa on the morning of the 24th January (5th February).

Immediately on arriving at this place, Kuropátkin sent *Jigit* volunteers to the wells of Kizil-Sakál and Ilel-Salésh with orders to bring back specimens of the water there as quickly as possible, and with a promise of a large money reward. They and the Tekkes who had submitted, and who were with the detachment, were afterwards to serve as guides to these places. At 1½ *versts* (1 mile) from the camp two officers' picquets were placed on the roads, with orders to disarm and give passes to all Tekkes desiring to return to the oasis. The same orders were given to Major Sivinis at Izgand.

* With the 3 Turkistán companies were the 1st and 3rd companies of the Sámur, the 9th of the Stavrópol, and the 12th of the Apsheron regiment, the 5th *sotnia* of Lába Cossacks, the 2nd of the 5th Orenburg cossacks, the Turkistán mountain gun division, and that of the 6-21st Brigade, the sapper section and the heliographers,—in all 7½ companies, 2 *sotnias*, 4 guns.—*Author.*

On the evening of the 23rd January (4th February) Sufi-Khán and Khudai-Verdi-Khán appeared before Kuropátkin and made their submission. Their appearance was very dejected, and bore witness to the wretched state of the people. Both were sent on to General Skobelev.

At 8 A.M. on the 25th January (6th February) the detachment from Kuhna (Old) Gok-Tapa, consisting of a section of Sappers, 4 companies (2 Turkistán, 1 of the Sámur and 1 of the Stávropol Regiment), 3 *sotnias* (one of the 5th Orenburg Cossacks, the 5th of Lába Cossacks, and a mixed one of Turkistán Cossacks), 4 mountain guns (2 of them of the Turkistán brigade), 4 rocket-troughs and a heliographic detachment, marched into the desert. It took with it supplies for ten and for five days and 1,803 gallons of water.* The transport consisted of 300 very feeble camels. As a reserve there were left at Kuhna (Old) Gok-Tapa 3 companies and 2 *sotnias* under Gulyayeff, whose duties were, on receiving orders or on hearing disquieting reports, to at once advance to reinforce the main body with 2 companies and 2 *sotnias*, for the baggage and supplies of which 150 camels and 40 water-barrels were left with him. On these camels, in the event of an advance, he was to carry seven days' supplies and three days' forage.

As the detachment was marching off, the *Jigits* sent to Ilek-Salésh for water returned. According to their reports, the movement of the inhabitants into the *oasis* had begun, but only in small parties. They had seen about 1,000 men at the wells of Mergin and Ilek-Salésh.

The force marched with 2½ *sotnias* in the advanced guard, the rest forming the main body, except half a company and a section of Cossacks, which formed the baggage guard. To maintain order in the distribution of the water, it was put in charge of a special officer, to assist whom four men per company and two per *sotnia* were detailed.

To induce the Tekkes to return quicker, *Jigits*, and the more reliable of the Turkumán Elders who had come in as deputies, were sent forward on the road with proclamations. As before, the proof of submission was to be the voluntary surrender of arms, to receive which during the march *Jigits* were sent, each weapon handed in to the column being signed for, and a reward being paid, 2 *roubles* to soldiers and 1 to *Jigits*, for each. For each Berdán rifle recovered 5 *roubles* were paid.

On the first day the force met about a thousand Tekkes returning, who had from 1,500 to 2,000 camels with them. Next day the more wealthy began to come in with flocks of sheep. Strict measures were taken to prevent marauding, and everything was ordered to be paid for.

The force arrived at the wells of Ilek-Salésh on the 27th January (8th February), having passed Mergin on the same day, at which place the water turned out to be quite salt. The first camp, at 30 *vershs* (20 miles) from Kuhna (Old) Gok-Tapa, was 7 *vershs* (4½ miles) short of Mergin. During the march a little rain fell, but the pools formed were so small that it was impossible to make use of the water. At Ilek-Salésh, 56 *vershs* (37½ miles) from Kuhna (Old) Gok-Tapa, there were four wells about 42 feet deep, of which two contained tolerably fresh water. No Tekkes were found here, but as reports came in that large numbers of them were gathered at the wells of Kutlayák, 20 *vershs* (13½ miles) off, Kuropátkin sent *Jigits* thither to distribute proclamations and take away their arms. Few of the latter were brought in however.

* Some of the water-barrels had been sent up the evening before by Artsishevski, who had been instructed to gather transport for water even if he had to confiscate the property of people attending the markets.—Instructions to him, dated 23rd January (4th February) 1881.—

On the 27th January (8th February) the force made a march of 30 *versts* (20 miles) across quicksands to the wells of Mámbat-Yár. The people met with along the road had a more well-to-do appearance than those previously encountered. At Mámbat-Yár there are 4 wells, the water of which is about 70 feet below the surface, and is brackish.

Next day the force halted, so as to give time for the *Jigits* who had gone out with proclamations to return. People passed but in small parties only, and still there was a considerable movement towards the *oasis*.

On the 28th January (9th February) all the cavalry was divided into three columns, and sent out into the desert to reconnoitre and gather arms. The first column, a *sotnia* of Lába Cossacks under Lieutenant Kofánoff, was to go to the wells of Ishmák, and, if possible, to those of Kaishák lying to the east of the route traversed; but its movements were to be so timed that it should return the same night. The second column, a *sotnia* of the 5th Orenburg Cossacks and a section of Turkistán Cossacks under Lieutenant-Colonel Mohrenschild, was to make a reconnaissance to Kizil-Sakál, and return not later than the night of the 28th or 29th January (9th and 10th February). The third column, composed of the mixed *sotnia* of Turkistán Cossacks under *Voiskoróbi-Starshina* Borodin, had to reconnoitre the road to the west as far as the wells of Burája, and return at about the same time as the second column. All columns were to take measures of precaution.

About 7 P.M. all three columns returned, bringing with them the arms they had taken from the population. Lieutenant-Colonel Mohrenschild had ridden 25 *versts* (16½ miles) to Kizil-Sakál, and had found there only a large flock of sheep belonging to the Tekkes. There were three wells with good fresh water, and on the road were passed the wells of Dougurli with brackish water. *Voiskoróbi-Starshina* Borodin had marched through Burája, 15 *versts* (10 miles), thence on to Karáj, whence he had returned to Mámbat-Yár. Lieutenant Kofánoff had only gone to Ishmák, as the guide did not know the road any further. In all the above wells the water was bad. People were everywhere met with in parties of considerable size with large flocks of sheep, and the Tekkes invariably proffered their submission and gave up their arms.

In view of the results already attained, and as there could not be people in any large numbers further to the north on the roads to Khiva and Marv, Colonel Kuropátkin considered his task finished, and started on his return march on the 29th January (10th February), reaching Kuhna (Old) Gok-Tapa on the 31st January (12th February). On the way, *Jigits* were sent to Mirza-Chili with proclamations, and also with a letter for Taghma-Sirdár. On arriving at Kuhna (Old) Gok-Tapa, these *Jigits* reported that all the wells to Mirza-Chili inclusive were filled up with sand, and that, according to the information they had received for the last two years, there had been no traffic along that route, and that Taghma Sirdár had retired to Marv.

This movement of our troops into the desert had a very beneficial effect, as the numerous inhabitants who had gathered round the wells had expressed their entire submission; about 15,000 people had been induced to return to the *oasis*, and the following arms had been collected:—295 Asiatic muskets, 606 swords, 46 pistols, 2 lances, 1 bayonet, 11 Berdán rifles, and 1 Krinka rifle.* During the operation, the troops had marched 250 *versts* (166½ miles), a survey had been made of the road, and a map of the routes to Khiva and the river Tajand, compiled from information received.

* Report from Colonel Kuropátkin, No. 517, dated 13th (25th February) 1881.—*Author*.

On the 27th January (8th February), Colonel Artsishevski wrote to the Commander of the Expedition that 8,000 men, principally inhabitants of the villages between Gok-Tapa and Kizil-Arvát, had arrived at the former place, and that, taking advantage of permission given them, they had seized on the remains of the booty in the ruined fortress. The superintendent of the administration, Major Spolathog, had given all of them authority to settle, had taken away their arms, and had sent them to their proper homes. In all about 1,200 muskets of different systems, 500 Berdán rifles, and more than 2,000 swords had been taken from them. The latter were transformed by us into scythes for cutting hay. Their leading men had been ordered to furnish information as to the number of *kibitkas* and the strength of each tribe. After that they were sent into the desert and hills to proclaim an amnesty to the fugitives. The *aksakáls* who returned were left in their functions, and new ones chosen in the places of those who did not appear.

On the 31st January (12th February) General Skobelev reported from Gok-Tapa to the Minister of War :—"The pacification of the country is going on very successfully. Last time I reported to the Commander-in-Chief that 7,000 souls had returned to their homes; now this number has increased to 16,000. The return of the fugitives and their disarmament are still going on. The pardon of His Majesty the Emperor has been promised to the people, and their Elders have been informed that in addition to their taxes they will have to pay a considerable contribution. I also did not think it necessary to promise them freedom from military service. In a word, I have made no promises. I am using all means to ensure good crops next year by attending to the irrigation of the fields in good time, for the *oasis* from Gok-Tapa to Askhabád is really very fruitful. The Elders have pointed out to me that the Tekkes know how to fight, and have given proofs of this; but that they have never talked idly, and henceforth will show their devotion to the White Tsár. Yár-Muhammad-Khán of Bujnurd is of the same opinion regarding them; they are in fact a warlike and honourable people."*

After its concentration at Kuhna (Old) Gok-Tapa, and when affairs appeared perfectly settled in the country after our victory, it became necessary to send the Turkistán detachment back as soon as possible to the Amu-Daria. The principal cause of this necessity was the waterless nature of the road from Kizil-Arvát to Zmukshir, in consequence of which it is only practicable in autumn and winter; for on the approach of the hot weather, as the experience of 1873 had shewed, even small forces could not move along it without extreme risk. For this reason General Kaufmann, in sending off Kuropátkin's force to join the expedition, had requested General Skobelev to send it back early in the spring. In consequence of these considerations Colonel Kuropátkin was ordered to move to Bámi, where he was to make preparation for a march on as early a date as possible to Petro-Alexandrovsk.

On the 7th (19th February), the force left Kuhna (Old) Gok-Tapa, and on the 12th (24th) arrived at Bámi on camels hired by Kuropátkin from the Tekkes, at 15 *roubles* each per month. The animals were to go with him to Khiva.

The total transport of the detachment, on its leaving Bámi, was 345 Tekke camels, 120 of Gromoff's, 97 from the Government transport, 330 with the Turkistán detachment, and 10 company camels,—in all 902. At Bámi were taken out of store the following means of carrying water which had been left there for

safe keeping, viz., 152 large water-barrels (21·6 gallons each), 123 small barrels (13·5 gallons),* and 280 water-skins,—in all carriage for 6,020 gallons of water. The force was provided with supplies for three weeks, and to lighten its baggage, the second complement of small-arm and artillery ammunition, the damaged intrenching tools, the warm coats, felt boots, &c., were left behind at Bámi.

All the camels handed over to the force were very much jaded by their heavy work at the end of 1880. The camels of the Turkistán detachment, which had been sent off during the siege of Gok-Tapa to the hitherto untouched valley of the Chandir to recruit their strength, had not succeeded in doing so, and therefore great losses among them on the long and toilsome march to the Amu-Daria were to be looked for. The Temporary Commander of the Troops therefore sent a proposal on the 5th (17th) February, from Bámi to the commander of the Amu-Daria district, Colonel Grotenhelm, for the latter to buy out of the sums allowed for the expedition 300 camels, and send them with five days' supplies and water to the wells of Chágil, and, if possible, to Nafas-Kuli by the 1st (13th) March at the latest.†

On his side Kuropátkin had sent Lieutenant Kalitin from Kuhna (Old) Gok-Tapa by the straight road across the desert to Khiva, and thence to the Amu-Daria district to inform the Khán of Khiva and Colonel Grotenhelm of the return of the Turkistán detachment, and to request them to co-operate in helping its march across the desert by clearing out the wells of Chágil, Kizil-Ja-Kuyusi, Sháh-Senem, and Giaur-Kala, and, if possible, to send camels to Ortakui to meet the force.‡

Colonel Kuropátkin proposed to march by the former route and make 5 marches to Igdi, halt there two days; then 3 marches to Orta-kui, halt there two days, and 7 marches to Chágil, reaching Petro-Alexandrovsk on either the 10th (22nd) or 15th (27th) March.

On the 14th (26th) February, the Turkistán detachment left Bámi. It numbered 32 officers, 3 officials, 80 non-commissioned officers, 31 bandsmen, 598 rank and file, and 26 non-combatants—in all 770 men and 280 horses. One officer and 41 men had remained sick or wounded in the *oasis*.§

At the very beginning of the march from Bámi to the wells of Niáz, a strong whirlwind began to blow which made marching very difficult; 96 camels perished on this march. On the second day's march (80 *versts* = 20 miles) to a waterless halting-place, 114 camels were left behind; the rest of the camels were very feeble and some of them fell down under the most insignificant loads, and even without loads at all.

The further advance of the detachment with all its baggage had now become impossible, and therefore Colonel Kuropátkin resolved to leave behind,

* One hundred and twenty-three small barrels were taken in exchange for the large ones brought from Turkistán as being more suited to the strength of the camels.—*Author*.

† Letter from the Commander of the Expedition to Colonel Grotenhelm, dated 5th (17th) February 1881, No. 874, received at Iliki, on the 20th February (4th March). A telegram with the same proposal was sent to General Kaufmann.—*Author*.

‡ Besides these objects, Lieutenant Kalitin was also ordered to reconnoitre the road from Gok-Tapa by Ilek-Salésh, Laili and Chágil, paying attention to those wells with fresh water which were shallow, and which could be easily dug out. He was to explain to the Tekkes, whom he met on the way, that the greater part of the inhabitants had submitted, and that *kibitkas* and food had been given to those who had returned, with permission to live in their former homes.—*Author*.

§ The detachment had lost 35 men killed or died of wounds during the Expedition, among them Staff-Captain Grek, of the artillery, and Lieutenant Kunakovski, of the Ural Cossacks. One man had died from disease. The detachment had 81 wounded, but took most of these back with it.—*Author*.

at his halting-place on the 15th (27th) February, all baggage which, even though privations might be incurred, was not absolutely indispensable for the onward march. Thus there were left behind *kibitkas* and *yulameikas*, except a few for the sick, part of the bedding-felts, stretchers, intrenching-tools, except the *mattocks*, some of the tea-boilers, buckets, company and *sotnia* cooking-pots, spare materials for boots, carpenter's tools, part of the biscuit and forage, half of the groats, the yearly clothing for 1881, the kits of the soldiers killed, the men's kits, except such parts of them as it was decided should be carried by the men in addition to four days' supplies, cloth trousers, part of the officers' kits, &c. The total left behind amounted to over 480 cwt. To look after the stores thus left, a guard of armed Kirghiz was formed, well supplied with provisions and water, and a messenger was sent into Bâmi with a request that the things left behind should be taken into store.

In case of further losses among the camels Kuropátkin warned commanding officers that, if circumstances demanded it, they would have to throw away all their bedding-felts and sheepskin coats, make the men carry the biscuit, dismount all the Cossacks and load their horses with water-casks and forage, carry the wounded and sick on horseback, leave all the officers' kits behind, and follow only one aim, *viz.*, to get all the men with their arms and ammunition and the guns with their ammunition to the Khivan oasis.*

From the camp of the 15th (27th) February, the troops advanced with all their arms, ammunition, water-vessels (109 large and 93 small barrels and 280 water-skins), sheepskin coats, bedding-felts, biscuit, and 17 days' forage.

The water-vessels were distributed as follows :—

Per company and <i>sotnia</i>	...	...	18 large and 4 small barrels.
For the mountain division	...	...	4 " " 2 " "
For the Staff and <i>jigits</i>	...	...	4 " " 6 " "
In reserve at the disposal of the Commander of the Detachment	...	10	" " 64 " "

Of the water-skins, 220 were assigned to the cavalry and 20 each to the infantry, mountain division, and Staff.

To give early notice of the return of the detachment to the Khivan authorities and the Commander of the Amu-Daria district, Sub-Lieutenant Nasakin, who volunteered for this purpose, was sent on with a guide and an interpreter.

The further advance of the detachment till it reached flowing water is of special interest, as it took place after a third of the camels had died, after part of the water-barrels had been thrown away, and while the temperature was daily increasing and not diminishing as during the march in November 1880. The manner in which the commander of the detachment managed his store of water is very instructive, and therefore we shall give a few notes regarding the march from the *Diary of Military Operations of the Turkistán Detachment*.

16th (28th) February.—At 11-30 A.M., advanced from camp towards the wells of Sansiz, but after marching 28 *versts* (18½ miles) reached a salt hollow in which some water remained from the previous night's rain. Commander therefore ordered halt here for the night, to make use of water for men and

* Report from Kuropátkin to General Pávloff, No. 551, dated 16th (28th) February 1881.—

horses and thus spare the reserve. Water did not suffice for camels. Water in salt-hollow muddy and clayey but fresh, and was therefore all drunk up; in the morning, on account of its insufficiency, 9 barrels of fresh water, brought from Bâmi, were distributed among troops.* 16 camels perished on this march.

17th (27th) February.—On mustering transport this morning, there were the following number of camels with the detachment—

Tekke camels	...	...	...	...	312
Gromoff's camels	...	...	...	...	68
Government transport camels	...	...	...	...	42
Turkistán camels	...	...	...	...	176
Spare, with baggage	...	...	...	...	12
Total					610

Force marched at noon to wells of Sansiz, which it reached at 2 P.M., after march of 7 *versts* ($4\frac{3}{4}$ miles). Proposed to halt at Sansiz to water camels. Two miles from Sansiz and off the road a hole with rain water was observed; the commander ordered reserve of water expended in morning to be filled up from it, and it was decided to water horses from this pool. Water at Sansiz was of bad quality and horses would not drink it. Men were ordered to boil tea and cook food with well water. Two barrelsful of water per company and *sotnia* were drawn from these wells, and it was then ordered to have more wells opened to water the camels and form a reserve of at least 135 gallons of water per company and *sotnia*. By the evening 17 wells had been dug, to make which the men had had to undress and descend to the bottom. Five *roubles* were given as a reward for each well thus opened.

18th February (2nd March).—Force left wells of Sansiz at 8 A.M., and at 2-30 P.M., after marching 20 *versts* ($13\frac{1}{2}$ miles), made a long halt at a place without water. Camels were unloaded and pastured. Men had dinners and made tea. The use of the well water from Sansiz was said to cause diarrhoea, and therefore at this halt Colonel Kuropátkin ordered 2 barrels of fresh water to be issued per company and *sotnia*. At 5-30 P.M., detachment again marched and halted in a waterless place at 8-30 P.M., rear-guard only coming in at 10-45 P.M. Total day's march 35 *versts* ($23\frac{1}{2}$ miles). 30 camels had perished on the way. 20 barrels of water were expended at the halting-place for the night, and 15 at the midday halt. Detachment marched on 19th February (3rd March) with 40 barrels of water.

19th February (3rd March).—Detachment marched for Igdi at 8-30 A.M., and cavalry in advance reached it at 1-30 P.M. Baggage began to arrive at 2-30, and infantry came in at 5 P.M., after a march of 26 *versts* ($17\frac{1}{2}$ miles). At the midday halt 10 barrels of water were issued to the troops and 2 to the camel-drivers. 16 camels were lost.

20th February (4th March).—Halt. Ten wells at Igdi, of which one has fresh and 9 have brackish water. Commander ordered all barrels to be filled up and all camels watered. As the water in the wells of Great Igdi was insufficient, some of the camels under the baggage-master, Lieutenant-Colonel Yefremoff, were ordered to be sent to the wells of Little Igdi 3 *versts* (2 miles) further on.

* On leaving the wells of Niáz, water was carried in 150 large and small barrels. On the 15th (27th) February, only 134 barrelsful were brought into camp, and at the latter 60 were expended.—*Author.*

at his halting-place on the 15th (27th) February, all baggage which, even though privations might be incurred, was not absolutely indispensable for the onward march. Thus there were left behind *kibitkas* and *yulameikas*, except a few for the sick, part of the bedding-felts, stretchers, intrenching-tools, except the *mattocks*, some of the tea-boilers, buckets, company and *sotnia* cooking-pots, spare materials for boots, carpenter's tools, part of the biscuit and forage, half of the groats, the yearly clothing for 1881, the kits of the soldiers killed, the men's kits, except such parts of them as it was decided should be carried by the men in addition to four days' supplies, cloth trousers, part of the officers' kits, &c. The total left behind amounted to over 480 cwt. To look after the stores thus left, a guard of armed Kirghiz was formed, well supplied with provisions and water, and a messenger was sent into Bami with a request that the things left behind should be taken into store.

In case of further losses among the camels Kuropátkin warned commanding officers that, if circumstances demanded it, they would have to throw away all their bedding-felts and sheepskin coats, make the men carry the biscuit, dismount all the Cossacks and load their horses with water-casks and forage, carry the wounded and sick on horseback, leave all the officers' kits behind, and follow only one aim, *viz.*, to get all the men with their arms and ammunition and the guns with their ammunition to the Khivan oasis.*

From the camp of the 15th (27th) February, the troops advanced with all their arms, ammunition, water-vessels (109 large and 93 small barrels and 280 water-skins), sheepskin coats, bedding-felts, biscuit, and 17 days' forage.

The water-vessels were distributed as follows:—

Per company and <i>sotnia</i>	...	...	18 large and 4 small barrels.
For the mountain division	...	...	4 " " 2 " "
For the Staff and <i>jigits</i>	...	...	4 " " 6 " "
In reserve at the disposal of the Commander of the Detachment	...	...	10 " " 64 " "

Of the water-skins, 220 were assigned to the cavalry and 20 each to the infantry, mountain division, and Staff.

To give early notice of the return of the detachment to the Khivan authorities and the Commander of the Amu-Daria district, Sub-Lieutenant Nasakin, who volunteered for this purpose, was sent on with a guide and an interpreter.

The further advance of the detachment till it reached flowing water is of special interest, as it took place after a third of the camels had died, after part of the water-barrels had been thrown away, and while the temperature was daily increasing and not diminishing as during the march in November 1880. The manner in which the commander of the detachment managed his store of water is very instructive, and therefore we shall give a few notes regarding the march from the *Diary of Military Operations of the Turkistán Detachment*.

16th (28th) February.—At 11-30 A.M., advanced from camp towards the wells of Sansiz, but after marching 28 *vershs* (18½ miles) reached a salt hollow in which some water remained from the previous night's rain. Commander therefore ordered halt here for the night, to make use of water for men and

* Report from Kuropátkin to General Pávloff, No. 551, dated 16th (28th) February 1881.—

horses and thus spare the reserve. Water did not suffice for camels. Water in salt-hollow muddy and clayey but fresh, and was therefore all drunk up; in the morning, on account of its insufficiency, 9 barrels of fresh water, brought from Bámi, were distributed among troops.* 16 camels perished on this march.

17th (27th) February.—On mustering transport this morning, there were the following number of camels with the detachment—

Tekke camels	...	...	...	...	312
Gromoff's camels	...	...	...	...	68
Government transport camels	...	...	...	...	42
Turkistán camels	...	...	...	...	176
Spare, with baggage	...	...	...	...	12
Total					610

Force marched at noon to wells of Sansiz, which it reached at 2 P. M., after march of 7 *versts* ($4\frac{1}{2}$ miles). Proposed to halt at Sansiz to water camels. Two miles from Sansiz and off the road a hole with rain water was observed; the commander ordered reserve of water expended in morning to be filled up from it, and it was decided to water horses from this pool. Water at Sansiz was of bad quality and horses would not drink it. Men were ordered to boil tea and cook food with well water. Two barrelsful of water per company and *sotnia* were drawn from these wells, and it was then ordered to have more wells opened to water the camels and form a reserve of at least 135 gallons of water per company and *sotnia*. By the evening 17 wells had been dug, to make which the men had had to undress and descend to the bottom. Five *roubles* were given as a reward for each well thus opened.

18th February (2nd March).—Force left wells of Sansiz at 8 A. M., and at 2-30 P. M., after marching 20 *versts* ($13\frac{1}{2}$ miles), made a long halt at a place without water. Camels were unloaded and pastured. Men had dinners and made tea. The use of the well water from Sansiz was said to cause diarrhœa, and therefore at this halt Colonel Kuropátkin ordered 2 barrels of fresh water to be issued per company and *sotnia*. At 5-30 P. M., detachment again marched and halted in a waterless place at 8-30 P. M., rear-guard only coming in at 10-45 P. M. Total day's march 35 *versts* ($23\frac{1}{2}$ miles). 30 camels had perished on the way. 20 barrels of water were expended at the halting-place for the night, and 15 at the midday halt. Detachment marched on 19th February (3rd March) with 40 barrels of water.

19th February (3rd March).—Detachment marched for Igdi at 8-30 A. M., and cavalry in advance reached it at 1-30 P. M. Baggage began to arrive at 2-30, and infantry came in at 5 P. M., after a march of 26 *versts* ($17\frac{1}{2}$ miles). At the midday halt 10 barrels of water were issued to the troops and 2 to the camel-drivers. 16 camels were lost.

20th February (4th March).—Halt. Ten wells at Igdi, of which one has fresh and 9 have brackish water. Commander ordered all barrels to be filled up and all camels watered. As the water in the wells of Great Igdi was insufficient, some of the camels under the baggage-master, Lieutenant-Colonel Yefremoff, were ordered to be sent to the wells of Little Igdi 3 *versts* (2 miles) further on.

* On leaving the wells of Niáz, water was carried in 150 large and small barrels. On the 15th (27th) February, only 134 barrelsful were brought into camp, and at the latter 60 were expended.—*Author.*

21st February (5th March).—Detachment was divided into 2 *échelons* for further advance. 1st *échelon*, consisting of 2 *sotnias* and the rocket section, under Lieutenant-Colonel Gulyáeff, was ordered to advance this day to wells of Ortakui, and the distance to this place, 100 *versts* ($66\frac{2}{3}$ miles), was to be covered by the *sotnias* and rocket section in two marches, so that the horses should be as short a time as possible without drinking, and by the baggage-train with a strong escort in 3 marches. The horse were to march to Ortakui without being watered. The 2nd *échelon*, consisting of 3 companies, 2 guns, and the hospital, was to halt a second day at Igdi. The commander marched with this *échelon*.

The 1st *échelon* marched this day, baggage at 9 A.M., troops at noon. With it went 48 water-barrels and 191 water-skins, forage for 14 days (83·2 cwt.), biscuits for 12 days (22·4 cwt.), and slaughter cattle (75 heads) for 16 days. In all 182 camels. Colonel Gulyáeff was ordered in case of need, *i.e.*, in the event of a large number of camels perishing, to dismount his men, load the horses with forage, and use the camels thus freed from loads for carrying water. On arrival at Ortakui, he was to await further orders.

22nd February (6th March).—2nd *échelon* left Igdi at 8 A.M., and halted for the night at 4-30, at a place without water, after a march of 30 *versts* (20 miles). 35 camels lost on the way. *Échelon* took with it from Igdi 1,215 gallons of water with the troops and 540 in reserve. At the midday halt 81 gallons, and at the camping ground 405 gallons were expended.

23rd February (7th March).—2nd *échelon* marched at 7-30 A.M., and halted for the night at 4 P.M., at a place without water, after a march of about 30 *versts* (20 miles). 17 camels lost on the way. On arrival in camp the camels, after being unloaded, were, as usual, taken out to pasture till dark. At the halt 81 gallons and at the camping ground 405 gallons of water were expended. From the reserve 27 gallons (2 barrels) were given to the camel drivers.

24th February (8th March).—*Échelon* marched at 7-30 A.M., and arrived at Ortakui at 5 P.M., where it joined the 1st *échelon*. Total day's march 34 *versts* ($22\frac{2}{3}$ miles). 25 camels lost on the way. Each company brought 2 water-barrels (in all about 162 gallons) into Ortakui, 81 gallons having been expended at the midday halt.

25th February (9th March).—Halt for the 2nd *échelon*. On mustering the camels, it appeared that in the march from Igdi to Ortakui, the 1st *échelon* had lost 36 and the 2nd 77 camels; in all 113. 451 camels still remained.

From the wells of Igdi to those of Chágil the Turkistán detachment marched in three *échelons* so as to make some use of the small wells of Daudir and Giaur, which lie on the road to the Khánate. On 25th February (9th March), 1st *échelon* (Orenburg *sotnia* and rocket-section under Lieutenant-Colonel Gulyáeff) marched with 622 gallons of water and 53 camels. 2nd *échelon* (Ural *sotnia* under *Voiskonóí-Starshina* Borodin) marched on 26th February (10th March) with 24 barrels and 50 water-skins, in all 540 gallons, and 115 camels (58 belonging to the Staff of the detachment.) 3rd *échelon* left on 27th February (11th March)—3 companies, 2 mountain guns and the hospital, under Major Bogayevski—with 146 water-barrels and 283 camels. The commander of the detachment marched with the 2nd *échelon*. *Échelon* commanders were allowed to cover the distance to Giaur-Kala as they pleased, but they were not to make of it more than 4 marches.

26th February (10th March).—2nd *échelon* left wells of Ortakui at 8 A.M. After marching 11 *versets* ($7\frac{1}{2}$ miles) it was noticed that the tracks made by the 1st *échelon* the day before, turned off to the left, and Colonel Kuropátkin concluded that it had deviated from the proper route. Supposing, however, that it would regain it all the same, Kuropátkin sent three Cossacks and a *Jigit* from the wells of Nafas-Kuli to those of Daudir to try and find traces of Colonel Gulyáeff's *échelon*. On halting however, at 6-30 P.M., after marching 36 *versets* (24 miles) from Ortakui and 12 or 14 *versets* (8 or 9 miles) from Nafas-Kuli, the commander of the detachment received a report from Colonel Gulyáeff, saying that he had deviated from the road, and therefore had that day only reached the wells of Daudir-Kala. This report had been left tied to a stick at the latter wells. The *échelon* had had to traverse such heavy sand-hills that to avoid losses of camels the *sotnia* had been dismounted and had helped to carry the load. This day the 1st *échelon* halted between the wells of Daudir-Kala and Giaur-Kala.

27th February (11th March).—From the (waterless) halting-place, baggage of 2nd *échelon* marched at 7-30 A.M., and the *sotnia* at 9 A.M. At 11 A.M. reached wells of Daudir-Kala, where the horses were watered before going on. At 3 P.M. on reaching the ruins of Daudir-Kala, the *échelon* was met by Sub-Lieutenant Nasakin who had been sent forward on 16th (28th) February to Iliáli and had excellently performed the mission entrusted to him by Colonel Kuropátkin. After him came a convoy of 150 camels with water and 60 sheep under escort of a company and a *sotnia*, sent out by the Commander of the Amu-Daria district to meet the Turkistán detachment. Colonel Kuropátkin ordered the commander of this convoy, Lieutenant Bailkin to hand over 15 sheep to the 2nd *échelon* and to proceed with the remaining sheep and camels with water to the wells of Daudir-Kala to await the arrival of Major Bogayevski with the 3rd *échelon*. This aid would enable part of the men of the companies to ride on camels, and even if their march was not thus quickened, it would at any rate be made easier. Twenty *versets* ($13\frac{1}{2}$ miles) beyond the ruins of Dau-Kala, the 2nd *échelon* halted for the night at a place without water, having marched 40 *versets* (26 $\frac{2}{3}$ miles).

28th February (12th March).—*Échelon* marched at 7-30 A.M., and at 7 P.M. reached wells of Giaur-Kala, after a march of 46 *versets* (30 $\frac{2}{3}$ miles). No mid-day halts had been made by the baggage on the 3 marches from Ortakui, but immediately after reaching camp each day, the camels had been sent out to pasture till 3 hours before the time for marching.

1st (13th) March.—Baggage marched at 7-30 A.M., and *sotnia* at 9 A.M. At half way to Sháh-Senem, the *échelon* met 40 camels marching unladen under escort of a few infantry soldiers sent out by Colonel Grotenhelm in addition to those previously sent. These camels were also sent on to meet the 3rd *échelon*. About 4 P.M., the 2nd *échelon* arrived at wells of Sháh-Senem and halted for the night, although Colonel Kuropátkin had intended to do 8 miles more this day. He had to halt because the guide with the *échelon* did not know the way to Toprak-Kala, where, as Colonel Kuropátkin knew, was the camp of a small force of two companies and an Ural *sotnia* who were escorting a party exploring the old bed of the Uzboi, and on which the 1st *échelon* under Colonel Gulyáeff had been directed. It was tolerably difficult to follow the track of the latter, as it had been almost effaced by a sand-storm which had begun about mid-day. Colonel Kuropátkin therefore decided to halt at Sháh-Senem, and at 4-30 P.M. sent a *Jigit* to Toprak-Kala with a note to the commander of

the detachment asking him to send a guide for the 2nd *échelon* at daybreak. The length of this day's march was 30 *verssts* (20 miles.)

2nd (14th) March.—Without waiting for guides the 2nd *échelon* marched at 8 A. M. on Toprak-Kala. One of the *Jigits* who had made a patrol along the road the night before, and the faint traces of the 1st *échelon* serving as guides. This directing of the *échelons* of the Turkistán detachment from Sháh-Senem on Toprak-Kala and not on the wells of Kizil-Ja-Kuyusi, by which the detachment had marched before, was proposed to Colonel Kuropátkin in a letter from the Commander of the Amu-Daria district, as the wells of Kizil-Ja-Kuyusi were dried up, while at Toprak-Kala there was running water and the road to it was good and not longer than the other. At 12 *verssts* (8 miles) from Sháh-Senem, the *échelon* met the guides sent out by Colonel Grotenhelm. Their late arrival was explained by the fact that the *Jigit* sent overnight with the note had neglected his duty and had only arrived in the morning at Toprak-Kala. At 10 *verssts* (6½ miles) from Toprak-Kala, the *échelon* was met by the Commander of the Amu-Daria district with the members of the exploring party and the 4th *solnia*, 2nd Ural Cossacks. At 5 P. M. it arrived at Toprak-Kala, the baggage coming in at 6-30 P. M. The total length of the march was 40 *verssts* (26½ miles.)

Major Bogayevski's 3rd *échelon* arrived at Toprak-Kala at 6-30 P. M. on the 4th (16th March), having done the distance from the wells of Ortakui to Giaur-Kala in four marches and thence to Toprak-Kala in two marches. The division of Turkistán Cossacks was sent out to meet it, so that all the troops of the Turkistán detachment should march into camp at Toprak-Kala together. A few miles from camp, the detachment was met by the Commander of the Amu-Daria district, Colonel Grotenhelm, and the troops (two companies and a *solnia*) in camp*. The latter troops paid military honours to their comrades returning from active service. To ease the horses of the mountain division with the 3rd *échelon*, which were very much jaded from their constant marching for the last few months, generally in soft sands, ten wagon horses had been sent out to Sháh-Senem the evening before, and by these the guns were brought into camp. The horses were loaded with the guns and ammunition boxes and accomplished the march successfully.

At Toprak-Kala the troops were given a halt, but in consequence of the successive arrival of the *échelons* this was of different lengths for each, four days for the 1st, three for the 2nd, and one only for the 3rd *échelon*.

On arriving at Toprak-Kala, it was learnt that Lieutenant Kalitin, of the 1st Turkistán Rifle Battalion, who had been sent by Colonel Kuropátkin on the 7th (19th) February from Kuhna (Old) Gok-Tapa to the Khivan *oasis* by the direct route *via* the wells of Laili, had arrived at Petro-Alexandrovsk, and had been the first to give the Commander of the District news of the return of the Turkistán detachment. He had arrived safely, but after encountering many dangers and suffering many privations from thirst and fatigue on the road. For this ride he was decorated with the cross of St. George.

On the march from Ortakui to Toprak-Kala, 179 camels had been lost, including 20 of those sent by Colonel Grotenhelm. On the 5th (17th) March, the detachment had 150 *Tekke* camels, 18 of Gromoff's, 78 of their own, 10 company camels, and 170 of the Khivan ones sent to meet them, in all 461

* Grotenhelm's detachment had been sent out from Petro-Alexandro sk on the 11th (23rd)

camels. Of the 902 camels with which the detachment had left Bári, 610, i.e., two-thirds, had been lost on the march to Toprak-Kala. From the latter place, the Tekke camels were sent home, and Gromoff's and those formerly belonging to the detachment were despatched direct to Petro-Alexandrovsk, by the Gurlan ferry, with spare stores and supplies. The detachment left for Petro-Alexandrovsk by Iliáli, Khiva, and Khanki on the 6th (18th) March, its baggage being carried on 130 *arabas*. *Araba* horses carried the guns and ammunition boxes, as the horses of the mountain division had not recovered sufficiently to be able to carry their loads without danger of breaking down.

Within the confines of Khiva, the detachment found *kibitkas* ready pitched for it and firewood, forage and supplies provided by the Khán. At 8 *vershs* (5½ miles) from Khiva, on the 11th (23rd) March the detachment was met by Said-Muhammad-Rahím-Khán, with his suite, and on this day it halted in the capital of the Khánate in the summer-palace of the Khán. On the 14th (26th) March the detachment reached Petro-Alexandrovsk, and on the 15th (27th) it was broken up.

The route from Bámi to Petro-Alexandrovsk was as follows* :—

		<i>Vershs.</i>	Miles.
14th (26th) February	Fresh wells of Niáz	34	22½
15th (27th) "	Camp (no water)	35	23½
16th (28th) "	Salt wells of Sansiz	31	20½
17th February (March 1st)	Camp (no water)	30	20
18th " (" 2nd)	Brackish wells of Igdi	36	24
19th & 20th February (March 3rd and 4th)	Halts.		
21st February (March 5th)	Camp (no water)	35	23½
22nd February (March 6th)	" " "	35	23½
23rd February (March 7th)	Slightly brackish wells of Ortakui	35	23½
24th & 25th February (March 8th and 9th)	Halts.		
26th February (March 10th)	Camp (no water), route by wells of Nafas-Kuli	37	24½
27th February (March 11th)	Camp (no water), route by wells of Daudir	39	26
28th February (March 12th)	Fresh wells of Gianr-Kala	40	26½
1st (13th) March	Salt wells of Sháh-Senem	29	19½
2nd (14th) "	Canal of Toprak-Kala	45	30
3rd (15th) " 4th & 5th (16th & 17th March)	Halts.		
6th (18th) March	Village of Kok-Chukur	38	25½
7th (19th) "	Town of Iliáli	19	12½
8th (20th) "	Zmukshir	18	12
9th (21st) "	Takhta-Bazár	15	10
10th (22nd) "	Town of Kházavat	20	13½
11th (23rd) "	Town of Khiva	30	20
12th (24th) "	Village of Kujáli	23	15½
13th (25th) "	Village of Tama on the Amu	28	18½
14th (26th) "	Petro-Alexandrovsk	10	6½
Total		662	441½

The infantry marched on foot and were continually occupied with camels which had either fallen or had thrown their loads.

* It will be remarked that the figures in this route do not agree with those given above in the diary.—J. M. G.

Thus the route from Bámi to flowing water at Toprak-Kala, a total of 461 *versts* (307½ miles), over sandy desert, was traversed in 13 marches, giving a daily average of 35½ *versts* (23½ miles), and the whole route from Bámi to Petro-Alexandrovsk in 22 marches, or a daily average of 30 *versts* (20 miles).

During the march through the desert, two Orenburg Cossacks died of typhus fever. On arriving at Petro-Alexandrovsk, the detachment had 10 sick and 31 feeble men, among the former being three men with typhus fever. This fever began to spread also among the men of the garrison of Petro-Alexandrovsk. Of the men of the detachment 70 were taken into hospital between the 14th (26th) March and 1st (13th) April, of whom 37 were attacked by different varieties of typhus. In the same period 31 men of the garrison of Petro-Alexandrovsk, who had not taken part in the Expedition, were admitted into hospital: of these the greater number of typhus cases were among the Cossacks of the 1st Orenburg Regiment. By the 8th (20th) June this epidemic had completely disappeared. Of the 119 men attacked with it, 42 had not taken part in the Expedition and three had died.* The appearance of typhus is supposed to have been caused by infection having been brought from the Akhál-Tekke *oasis*, and the soil for it had been prepared by the difficulties and privations of the campaign.

On the 12th (24th) November 1880, the small Turkistán detachment had left for the Akhál-Tekke *oasis*, and on the 8th (20th) December it had arrived at Bámi, having accomplished a difficult march of 674 *versts* (449½ miles), mostly through the desert, in 20 stages. Moved up from Bámi to Gok-Tapa, it had, from the 20th December 1880 (1st January 1881) to the 12th (24th) January 1881, taken a most active part in the operations against the latter fortress, and had then been engaged in the occupation of the *oasis* up to Askhábád and the campaign into the desert. Without a rest, it had again started on its return march to the Amu-Daria and in all had marched in four months some 2,000 *versts* (1,333½ miles), besides being constantly under fire for 22 days before Gok-Tapa.†

The Commander of the Expedition, in taking leave of the Turkistán detachment, had issued the following order:—

“After the incredible difficulties of an almost impossible march, the Turkistán detachment arrived in the Akhál-Tekke *oasis* in excellent order and came under my command at the opening of military operations. In the advance on Gok-Tapa and Askhábád and in the fighting around Gok-Tapa during the siege and storming of that fortress, where it quickly became identified with its soldierlike comrades from the Caucasus, the Turkistán detachment has shown that it is composed of the same men whom I learned to know during my service in Central Asia.

“After the first actions with the enemy, I recognized the same steady front, the same military qualities, the same order that I had become accustomed to

* From the 13th (25th) March to the 8th (20th) June 1881, the number of cases of typhus in Petro-Alexandrovsk was as follows:—

	Admitted.	Cured.	Died.
5th Turkistán Line Battalion ...	15	13	...
13th Turkistán Line Battalion ...	14	12	1
4th battery 1st Turkistán Artillery Brigade ...	10	9	...
1st Orenburg Cossack Regiment ...	65	62	2
3rd <i>sovnias</i> 2nd Ural Cossack Regiment ...	9	7	...
Hospital detachment ...	6	6	...

(Report from the Officer Commanding the Troops in the Turkistán Military Circle, to the Chief of the General Staff, No. 5629, dated 15th (27th) July 1881).—*Author.*

† Journal of Military Operations of the Turkistán Detachment in the Akhál-Tekke Cam-

see at Khiva, Makhram, Andiján, Námanghán, Balikehi and on the snowy crests of the Pámir. In the hard-fought engagement of the 12th (24th) January the handful of steady Turkistán troops added a new and glorious page to the records of the Central Asian troops."

"In parting now with my dearly loved Turkistán troops, I wish them luck on their long and trying march, and I am convinced that even the terrible desert has now no terrors for them.

"I thank all the officers and men for their honourable performance of their duties and their devotion to the service. I thank especially the commander of the Turkistán detachment, Colonel Kuropátkin, with whom fate has united me in military brotherhood at the second assault of Andiján, in the trenches of Plevna, on the summits of the Balkáns, and now in the severe fighting before Gok-Tapa."*

The news of our victory on the 12th (24th) January quickly spread throughout Persia and Central Asia and produced on all an impression the more powerful as the more recent news from before Gok-Tapa had not been altogether favourable for the Russians and had not prepared the public mind for such a speedy and decisive success.

In view of the importance of our victory in Asia, and of the fact that our failure in 1879 had had an unfavourable influence for us even in our dealings with China, the Minister of Foreign Affairs telegraphed the news to all our representatives in Asiatic States, not excluding the consuls.†

Ambassador Zinovieff, on receiving General Skobeleff's telegram regarding the defeat of the Tekkes, at once communicated the news to Sháh Nasr-ud-Din, who was then at Jarjirud. The Ambassador's messenger reached the Sháh while hunting on the 14th (26th) January; and on reading the letter, the latter at once communicated its contents to his suite and then wrote the following reply:—"The letter addressed to Us in the French tongue has reached Us at Jarjirud. In view of the friendship and unity of views existing between Us and His Imperial Majesty, you have informed Us of the successes and victory won before Gok-Tapa by the troops of Our friendly neighbour Russia in the war against Akhál. This news has given Us lively satisfaction, and We are convinced that the victories of such a friendly power will entail peace and quietness on all Our boundaries and among the people of Khurássán."‡

Zinovieff was ordered to thank Sháh Nasr-ud-Din in the name of the Emperor for the congratulations which the latter had received from him on the occasion of our victory. At the interview on this occasion the Sháh said to Zinovieff that he greatly desired to see the realization of the grand work undertaken by Russia, and supposed that it would be completed on the day when the Marv-Turkumáns, whose brigandage had been in the highest degree hurtful to the welfare of the frontier provinces of Persia, had been severely punished. The Ambassador replied that at the present moment it was impossible for us to foresee all the consequences of our victory. We reckoned, however, on being able to carry out the extensive plans inspired in the mind of His Majesty the Emperor by his anxiety for the prosperity of the peoples whose territories bordered on that of Russia, and we should gladly carry out the affair to the end especially if the Persian Government on its part continued to

* General Order, No. 67, dated 21st February (5th March) 1881.—*Author.*

† Diary of the Asiatic section of the General Staff, 1880, No. 35, vol. V, page 83.—*Author.*

‡ Letter from the Sháh, dated 25th Safar 1298, 14th (26th) January 1881, and letter from the Russian Ambassador to General Skobeleff, No. 32, dated 16th (28th) January 1881.—*Author.*

maintain feelings of trust in, and friendship for, us, proof of which had been repeatedly given during the war with the Turkumáns. Sháh Nasr-ud-Din then said to the Ambassador that he thought the present moment a favourable one for the delimitation of a frontier line for Khurássán to the north, and asked him to state Russian views on the subject. Zinovieff answered that before entering on negotiations on the delimitation question, it was necessary to await information which General Skobeleff had promised to give him.*

The people of Khurássán were overjoyed at our victory, and Nasirbekoff reported that complete peace and quietness reigned between Mashhad and the border districts, and that a revival of trade such as had never been known before had begun. A deputation of Marv-Tekkes, who had been at Mashhad on the day of the receipt of the news of our victory of the 12th (24th) January, had returned to Marv much disquieted by this news, and had said loudly before their departure that to avoid further bloodshed nothing remained but for Marv to submit to the Russians. Our paper money was well received.†

Tairoff wrote from Bujnurd that "according to the judgment of the local wiseacres, our victory is without a parallel in history and everywhere legends as to the deeds of our soldiers are current. They are astonished at the skill and daring of General Skobeleff and cannot find words to praise him, and the very boys in the streets sing:—'*Rus Yakshi, Tekke Yaman.*' This," added Tairoff, "expresses the feelings of the country and shows what the common people think of our victory and the fall of the Tekkes. The *Ilkháni* of Bujnurd presented the messenger who brought the news with a cloth *khalat* and five *tománs*."‡ He told Tairoff that now only would order be established, and he wrote an autograph letter to General Skobeleff congratulating him on his victory and sent his *Mir-Akhur* (Master of the Horse) to Gok-Tapa with horses as presents for the Commander of the Expedition.

The Persian Government on their part paid unusual attention to our representations. Thus, when General Skobeleff reported to the Russian Ambassador that the inhabitants of Garmáb were harbouring armed Tekkes, and that the local headman, Saiyad-Hussain-Beg, had even sent bread to meet the fugitives,§ and when Zinovieff requested the Persian Government to send plenipotentiaries to put a stop to these practices, the Sháh telegraphed to Prince Rukn-ud-Daula:—

"Taking into consideration the friendship existing between the Persian and Russian Governments and the difficulties experienced by the latter in pacifying the Turkumáns and quieting Khurássán, you must so act as to give the Russians no cause to reproach Us, but, on the contrary, you must do everything you can in their interests and to fulfil all the wishes of their leaders.

"To-day a letter has been received from the Russian Ambassador reporting unlawful acts on the part of the Kuchán *aksakáls* and in particular of Saiyad-Hussain-Beg, *aksakál* of Garmáb, who has received fugitive Turkumáns and given them shelter. I send you a copy of this letter. I am surprised that my servants have not yet understood that there is no difference between the Persian and Russian Governments, and astonished that they should give shelter to Turkumáns, who are enemies of their faith and Government.

"On receipt of this telegram you will at once send a reliable man to Kuchán and inform Shuja-ud-Daula of this present order. He must himself

* Despatch from Zinovieff, No. 6, dated 26th January (7th February) 1881.—*Author*.

† Letter from Nasirbekoff to Grodekoff, dated Mashhad, 16th (28th) February 1881.—*Author*.

‡ Letter from Tairoff, dated 25th January (6th February) 1881.—*Author*.

go to Garmáb and to the frontier, and send back into Akhál all Turkumáns who seek refuge in his *viláyat*. He is to fulfil the wishes of the commander of the Russian troops, and on no account allow a single Turkumán into Khurássán. You will inform the *Ilkhánis* of the frontier provinces of Kalát, Daragaz, Kuchán and Bujnurd of this order.*

On receipt of this telegram, Prince Rukn-ud-Daula sent Abdul-Kasúm-Khán, his *Tufendar-Báshi*, to Kuchán with orders to collect all the fugitives in Kuchán and Daragaz, down to the young children, and to send them to the Russian camp, where he was to hand them over to General Skobelev, and get from the latter a receipt for them and an assurance to be forwarded to the Sháh, that the Russian General was pleased with his (the *Tufendar-Báshi's*) exertions. "To carry this order into effect," the instructions went on, "you must do your utmost to prevent a single one of the fugitives remaining in Daragaz or Kuchán. As up to the present time there have been no differences between the friendly Governments, you must try to keep up the same state of affairs in future also."

Abdul-Kasum Khán conscientiously fulfilled his task on the 20th February (4th March). He brought in to Gok-Tapa, amongst others, 89 women and 50 children who had been taken by the Persians after the assault of Gok-Tapa.* Shuja-ud-Daula himself arrived on the frontier at Garmáb, deposed Saiyad-Hussain-Beg, laid a contribution on the inhabitants of this place, and then expressed a wish to be allowed to go to Gok-Tapa to hail the captor of that fortress.† He said to our agent, Tairoff, that now all their hopes were based on the Russians, and that they would be pleased with all the latter did for them.

Colonel Zulfagar-Khán, who was attached to our army, reported to Teherán that in pacifying Akhál we had also pacified the neighbouring Persian provinces, as large numbers of the people had come into the camps of our troops and had got on very well with them.‡

The ruler of Daragaz, Muhammad-Ali-Khán, wrote to General Skobelev, congratulating him on his victory, which, said he, had made the road safe for Mussulmáns, and thanking him for setting free the people of Daragaz who had been captured by mistake by our Cossacks.§

On the 2nd (14th April) there arrived at Askhabád the *Mir-Akhur* (Master of the Horse) of Prince Rukn-ud-Daula, Muhammad-Hussain-Khán, with a congratulatory letter and presents from the Lieutenants of Khurássán and Seistán.||

* Report from Spolatbog, No. 46, dated 23rd February (7th) March 1881.—*Author*.

† Mention will be made of this in its proper place.—*Author*.

‡ Telegram from General Skobelev to Obrucheff, No. 3022, dated 25th March (April 6th) 1881.—*Author*.

§ *Ibid*.

|| To show how General Skobelev dealt with the Persian officials, the example of Muhammad-Hussain-Khán may be taken. It was only after long requests on his part, that General Skobelev gave him, instead of the usual silver medal, a small gold one, and ordered him to be given a reward of 100 half-Imperials, taking a formal receipt from him which was attached to the Diary of the Staff. The contents of Rukn-ud-Daula's letter were:—"As true and complete friendship exists between the two allied powers, I also from my heart express my high consideration and extreme friendship for you, and shall be continually interested in your health and success. On the occasion of such a brilliant affair and one for the success of which my dear friend has worked so hard, I think it necessary to congratulate the great conqueror, my dear friend, and to express to him my gladness at his victory and our good friendship. I have therefore sent to you my distinguished and hereditary *Mir-Akhur*, Muhammad-Hussain Khán, who is near to me and to His Majesty the Sháh, to convey my congratulations. As a sign of my friendship and regard, I send with him a ring with a turquoise, two pieces of *berek* (a fine woollen material), two pieces of *akir* (also a woollen web), and a carpet of our native manufacture. I hope you will accept these small gifts. I hope that you will be pleased both with me and with our whole nation. Have no displeasure in your heart. For friendship's sake, tell me of everything and rejoice me. Order whatever you desire."—(24th Rabi-ul-Sani, 1298.)—*Author*.

In India, Skobelev's name was well known, and certain Hindus were convinced that General Skobelev was not a Russian at all, but the Nána-Sáhib in disguise.*

Saiyad-Ali-Khán, Governor of Lutfábád, invited the people of Daragaz to go and trade in the Russian camp at Askhábád, and, as small Tekke bands were still prowling about, he gave the traders an escort. He also gave us information as to the movements of the fugitive population. Thus, for instance, he wrote that many Tekkes were gathered on the Tajand, and that the people of Marv were sending them supplies. "I give the General this information, so that he may not go unprepared to those places." Saiyad-Ali-Khán also asked the Temporary Commander of the Troops to give him whatever orders he pleased, even different ones every day, and all that was possible he would do for him. If supplies were required he would furnish them.†

On the 21st January (February 2nd) there appeared in the camp at Gok-Tapa a Mullah by name Ishán-Karaul-Begi, with a letter from the Salór and Sárík Turkumáns, in which those tribes professed their submission. To the letter were attached 15 seals of Elders and *Bairak-Kháns*. Karaul-Begi explained to Colonel Artsishevski that the Sáríks and Salórs had quarrelled with the people of Marv who had demanded fire-arms from them to continue the war against the Russians; this had been refused and now they were about to fight. "As you will wage war in Afghánistán," he said, "and as you will have to pass through our lands, we wish to become subjects of the White Tsár, so that our property, wives and children may be under his high protection."

The contents of the collective letter brought by Karaul-Begi were as follows:—

"We (*here follow the names*) of the Salór tribe send compliments and many *salaams* to all the Russian Generals with the wish that God will help you, and that your affairs may be successful. We of the Salór tribes are 6,000 families, of the Ata tribe 4,000, and of the Sárík tribe about 4,000, and we all live amongst the Marv-Tekkes. From the very beginning we have been at enmity with the Tekke-Turkumáns and have killed many of them. Formerly there were about 40,000 of these latter, but after we had killed a number of them, their strength was reduced to 22,000, and after that they were forced to make peace with us and give us land and water, and up till now we have lived at peace with them. Now the Tekke-Turkumáns, in view of the advance of the Russians against them, ask us to help them or, if not, to give up our lands and retire from their midst. Glory to God, there are few such brave people round about as we, and therefore the Persian Khán of Mashhad, the Sháh of Sarakhs, the Sháh of Daragaz, and the Sháh of Kuchán, knowing the proposals made to us by the Marv-Tekkes, wrote to us and proposed that we should settle at Sarakhs, or at Mashhad, or Kuchán, or Daragáz, promising to give us land and protection and to choose a *begliár-begi* from among us. The ruler of Khiva and the Khivan *Diván-Begi* also wrote and proposed to give us land and water and to honour us. Still we have not migrated. Trusting in you as in dear brothers, we send you Ishán-Karaul-Begi to explain our requests. If you think our people friendly to you, we request the Amir of Bukhára to be our intercessor and to give us an abiding place either at Kabakli or at Uch-Uchák, whither we shall migrate with our families, and we desire to pass the rest of our days under your protection.

"At present every month the Tekke-Turkumáns from Chahárjui, Sakar, Arsári, Kabakli, Khwája-Kala, Boinu-Uzun, and Dehnoff, plunder and

* Letter from Soboleff to Skobelev.—*Author*.

† Taken at the Staff of the Trans-Caspian Field Force, 1880, Part I, No. 27, page 192.—*Author*.

carry off women and children into captivity; they slay people and village property. If we were at Kabakli or at Uch-Uchák, the Tekke-Turkumáns could no longer make raids on Khiva or Bukhára, for they fear us.

"If you will recognise us from the oldest to the youngest as your friends, Ishán-Karaul-Begi will be well received and rewarded by you. He is one of our truest and most honourable men, and is much respected. All our rights are in his hands, so believe what he says. If you wish to know anything about us, about the Sárík and Ata tribes or about the Tekke-Turkumáns, ask Karaul-Begi. It is not worth while to fight much with them. Knowing their military situation you can easily subdue them, but without a knowledge of the state of their affairs it is not so easy. This is known to Ishán-Karaul-Begi. Therefore, we send *salaams* to and pray for you. This letter was written on the 3rd of the month Safar."

Next day Ishán-Karaul-Begi was sent to Askhábád, to General Skobelev. On his being questioned by the interpreter Agamáloff and then by Captain Utkevitch, he stated as follows:—

Ishán-Karaul-Begi, of the Salór tribe, an inhabitant of the town of Chahárjui, had been overseer to the well-known rich man Akbar-Khwája who had died five years before. After his death, Karaul-Begi employed himself in trade, and both as a priest and as a member of a good family, he enjoyed great confidence among the Salórs and Sáríks. On the proposal of the part of these tribes living in the Murgháb *oasis*, he had started with twelve *aksakáls* in the middle of December 1880, and, travelling by Rabát, Mashhad and Shirván, he had come to Gek-Tapa to make submission to the Russians. Karaul-Begi stated that not only the Sáríks and Salórs living at Marv, but also those under their influence and the people living on the river Kaisor, desired to submit to Russia.* If the Russian troops desired to march into their country, then, in the words of Karaul-Begi, the Salórs would be able to turn the course of the Murgháb from Rabát-Abdulla-Khán into the Tajand. The Persians at Sarakhs had the command of the Tajand, and each time that the people of Marv, who cultivated corn upon its banks, refused to pay them *tithe* of $\frac{1}{10}$ th of their crops, they turned off the water and ruined the harvest. The country between the Tajand and the Murgháb was occupied by nobody. The Sáríks and Salórs paid tribute to nobody, but held their lands in accordance with Mussulmán right. The ground on which the Salórs and Sáríks lived was considered by the people of Marv as their own, as it had been occupied by the latter during the war between Marv and Persia. Now they wanted tribute to be paid for it, and in consequence the Salórs requested land to be assigned to them at either Kabakli or at Charhárjui or else support from the Russians. One of the principal causes which had induced them to seek protection from Russia was that a rumour had been spread that the English were moving on Herát, and this might force the Jámshidis and Firuzkuhis to occupy their land. Regarding the purchase by the Tekkes of arms in Bukhára, Ishán-Karaul-Begi stated that this began in the beginning of 1880 at Chahárjui, and that the son of the Amir of Bukhára had sold them. Learning this, the Amir had deprived his son of his functions, and after that arms had only been privately bought in the bazaars. Relations had existed between Persia and Marv, and the people of Marv had sent messengers to Teherán. (The English Ambassador had advised them to acknowledge the supremacy of Persia quickly and not to await the pacification of Akhál-Tekke by the Russians.) The main force of Marv consisted of cavalry, they had few armed infantry, and up to date the town had not been fortified.

* He brought no documents to support this statement.—*Author.*

General Skobeleff thought the arrival of Ishán-Karaul-Begi of great importance, but wished to assure himself of the degree of the full powers possessed by him, and therefore he desired to enter into relations with the Salórs and Sáriks and find out about him. "In Central Asia," he wrote, "one must be very careful about documents. The seals of Kháns have been counterfeited continually since the most remote times as also those of private notables. In Asia seals are made with Indian ink, and they can be washed off and documents falsified to any extent.* In the present case this must be guarded against. We must be very careful. * * * * It is a fact

that the Amir of Bukhára and the Khán of Khiva, who are under the Russian Governor at Táshkand, have managed to keep up all their prestige as independent rulers in the eyes of the Mussulmán world, and it is remarkable how the Turkumáns completely ignore the vassaldom of Khiva and Bukhára to Russia. The danger, therefore, arises that our Central Asian military administration may content itself with official declarations of submission from the rulers of Khiva and Bukhára, and not do enough to cause the impotence of the Khán and the Amir to be recognized by the people. Such a state of affairs is a great triumph for Central Asian diplomatists."

Thus General Skobeleff, who had written to St. Petersburg in June 1880, that nothing brilliant in a military sense was to be expected from him, and that in history there had often been heroic defences, but that he did not know of heroic sieges, in the sense of the impression they made on the masses,† had now a perfect right to call our prestige undoubted.

At the time of the capture of Gok-Tapa, large supplies of provisions had been collected at Garmáb, one march from it. On the 16th (28th) January, a column composed of a company of the Daghistán Regiment and a *sotnia* of Taman Cossacks had been sent thither under Captain Golovkoff with the pack-horses belonging to the troops and the Tekke camels found in the conquered fortress. On the 19th (31st) January the column had returned bringing more than 320 cwt. of barley; and it had then been laid down as a principle that every horse except those belonging to the wheeled transport was to be used as a pack animal to bring forage from Persia.‡

Means of transport were got from Persia with difficulty; for, although in Khurássán people knew of the defeat of the Tekkes, the inhabitants of the towns and villages at some distance from the frontier continued to regard the road as dangerous.

On the 24th January (5th February) there were the following supplies at Gok-Tapa and Sámurskoye§ :—

	Gok-Tapa. Cwt.	Sámurskoye. Cwt.	Total. Cwt.
Biscuit and cakes	... 1548·8	5·12	1554
Rye flour	... 1004·8	2106·88	3111·68
Buckwheat groats	... 545·6	76·8	622·4
Salt	... 77·44	9·6	87·04
Tea	... 17·92	12·32	30·24
Sugar	... 118·16	52·16	170·32
Fruit acids	... 3·2	...	3·2
Wheat flour	... 456	1·6	457·6
Preserved meat	... 4,800 rations	...	4,800 rations.
Barley and oats	... 1792	51·2	1843·2

* In the large towns of Turkistán, especially at Marghilán and Khokand, there is a whole class of people, mostly belonging to the priesthood, who make this a speciality.—*Author*.

† Letter to Soboleff, No. 1, dated Bámi, 1st (13th) June 1880.—*Author*.

‡ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 44, page 139, No. 27, Part I.

Of this quantity, 800 cwt. of barley had been delivered from Persia, and 400 cwt. of wheat flour had been taken from the booty captured by us at Gok-Tapa. These last figures were not final, as Tekke provisions continued to be daily delivered into the magazine. The above supplies would last the troops of the advanced force (8,000 men) as follows:—Rye-flour, biscuit, and cakes for a month, buckwheat groats for 20 days, salt for 13 days, sugar for 27 days, and tea for 45 days. There were no other sea-ration stores. The Commander of the Expedition therefore, soon after the capture of Gok-Tapa, sent Grodekoff to Bámi to push up supplies and arrange for camel convoys. Our camel convoys had, however, been reduced to attenuated proportions which were decreasing not daily but hourly. Thus, Major Bekurázoff's convoy, which had been sent to recruit in the Chandir, left Duz-Olum, numbering 620 camels fit for service, but only 364 of them reached Bámi. General Annenkoff on the 16th (28th) January reported that he had 3,600 camels, Government and Gromoff's, fit for service; but on the 21st January (2nd February) this number had sunk to 2,509 (1,739 Government and 770 Gromoff's), which were distributed as follows:—450 Government camels were taking forage to Gok-Tapa on the 16th (28th) January; the remainder of Gurieff's and Muravieff's columns (800 head) were moving from Aidin to Bámi, and the rest of the Government camels, 489 head, had been sent under Khán-Gallia-Araslánoff to Aidin* to bring supplies from that place to Kazánjik to last till the 1st (13th) March and to Kizil-Arvát to last till the 1st (13th) April.† Of Gromoff's camels 650 had been sent up to Gok-Tapa, and 120 to Band-Hassan to bring up the spirits left there.

General Skobelev, who had intended to march to the Tajand in the end of January with 8 companies, 8 *sotnias*, and 8 guns, with supplies for fifteen and water for two days, ordered 1,500 camels to be sent up from the rear.‡ In consequence, 650 of Gromoff's camels, which had arrived at Gok-Tapa on the 24th January (5th February), were sent forward to Askhábád with supplies, and with as many water-vessels as could be found at Gok-Tapa (60 barrels and 120 water-skins). Besides these, of the 450 camels which had arrived at Gok-Tapa on the 16th (28th) January, and had at first been detailed to carry supplies from Garmáb to Gok-Tapa, 200 were given to Kuropátkin, and only 100 could be sent up to Askhábád. Thus the force at Askhábád would only receive 750 camels, *i.e.*, half of the number General Skobelev required. The wheeled transport was of course also available. About 3,200 cwt. of supplies could therefore be sent up to the Askhábád force, which had taken with it from Gok-Tapa supplies to last till the 1st (13th) February; and this would provide for its needs till the middle of March. More means of transport than this could not be furnished from the rear. The transport had been destroyed, and *volens volens* extreme measures had to be adopted to obtain camels. Sea-rations were rotting on the coast§, and on the lines of communication and at Bámi there were none; there was even no pepper. Scurvy had also shewn itself again in several cases, and the Turkistán detachment had to be sent back to the Amu-Daria.

The condition of our transport therefore made it impossible for us to fulfil our intention of reaching the Hari-Rud. Had it been persisted in, the

* 358 of these reached Aidin, of which 150 were serviceable.—Telegram from Araslánoff, dated Aidin, 31st January (12th February) 1881.—*Author*.

† Telegram from Colonel Ivánoff, No. 280, dated 31st January (12th February) 1881.—*Author*.

‡ Instructions to Grodekoff, No. 446, dated 20th January (1st February) 1881.—If this were impossible, the force was to be diminished by half.—*Author*.

§ Cherevánski reported that 1,280 cwt. of cabbages had been spoiled.—*Author*.

last vestige of our transport would have been destroyed, and we certainly should not have been able without extreme, and therefore expensive, measures to send the Turkistán troops home.*

Our agents had not yet collected sufficient means of transport to bring supplies from Persia, and it was unknown when they would succeed in doing this and in carrying supplies to Gok-Tapa and Ashkábád. The regimental pack-horses, which had been for a long time in camp before Gok-Tapa, were only able to carry a very small quantity of stores, and the Tekkes returning to the *oasis* were for the most part beggars, and had no spare means of transport.

At this time the troops in Trans-Caspia had supplies as follows:—

- (1) Advanced force for 8 months, *viz.*, 2 with the troops and in the advanced supply-depôts, 4 months' supplies prepared in Persia, and two months' at Bámi;
- (2) Garrisons along the line Bámi-Gok-Tapa for $1\frac{1}{2}$ months;
- (3) Garrisons along the Atrak line, from 3 to 8 months;
- (4) Garrisons along the Micháelovsk line; Kazánjik for $1\frac{1}{2}$, and Kizil-Arvát for $2\frac{1}{2}$ months. The other stations were on the railway and therefore had not to be considered.

To provide the troops with supplies (provisions, sea-rations and oats) till the 1st (13th) January 1882, it was necessary to carry forward—to the advanced force, 96,000 cwt. of stores; to the points between Bámi and Gok-Tapa, 4,838·4 cwt.; to the points on the Atrak line, 14,043 cwt.; and to Kazánjik and Kizil-Arvát, 9,250 cwt. In all, 124 161·4 cwt. had to be transported. If to this be added the yearly issues of clothing, hospital supplies, telegraph stores, &c., the total would be not less than 134,400 cwt.

At our disposal we had only carriage for 7,936 cwt. (120 wagons and 2,500 camels).

The camels were excessively exhausted, and in addition their rutting season was coming on. Therefore they could not be used in February, March, and April. As for the wheeled transport, it had been told off to the troops of the advanced force for the various duties they still had to perform, and only in exceptional cases could it be used to bring up supplies from the advanced depôts. The country along the Atrak, the local source from which we had hitherto drawn transport, was closed to us for military and political, and also for pecuniary reasons, and the returning Tekkes, as above stated, were beggars and could supply no transport.

To supply the troops in Trans-Caspia, General Skobelev thought it best to form a wheeled transport of such strength as was possible with our unaided resources. It was to consist of 100 wagons on the Atrak line, and 200 on the line Bámi-Gok-Tapa. The day after the capture of Gok-Tapa, the Commander of the Expedition, feeling that our transport was quite disorganized, had ordered Grodekoff to request the Chief of the Staff of the Army of the Caucasus, who was about to arrive shortly at Bámi, to send 300 wagons, with horses, harness, and drivers from the Caucasus. In giving this order, General Skobelev still thought that our transport would last till the arrival of the wagons.

Having reached Bámi and having made himself acquainted with the state of affairs, Grodekoff came to the conclusion that our transport required immediate renewal, and therefore he turned his attention to the country beyond the

* Report from Grodekoff to General Skobelev, No. 18, dated 23rd January (4th February) 1881. — *Author.*

Atrak, and requested Colonel Navrotski to try to obtain transport on the island of Cheleken. Grodekoff also telegraphed to Prince Vachnadze at Astrábad, asking whether it was impossible to obtain transport from the Yamúts to carry supplies from Chikishliár to Bámi on payment for the whole distance at the rate of 6 paper *roubles* per *pud*,* but he received a reply that nothing could be done in this matter.† Navrotski also reported from Krásnovodsk that there was little hope of getting camels from the island of Cheleken, and that the animals there were bad and weak.‡ Grodekoff then telegraphed to the commandant of the Atrak line asking whether 2,000 camels could not be hired to transport supplies from Duz-Olum and Chikishliár to Gok-Tapa on the following conditions:— If the owners desired, they might march through Persian territory; advances would be made of $\frac{1}{3}$ to $\frac{1}{2}$ the whole amount to be paid; the rest to be paid at Gok-Tapa, and the camels might be moved from Bámi to Aidin, and thence to Gok-Tapa, payment being made proportionately. He also asked whether it would not be better for us to buy 2,000 camels?§ Doie replied that there was no possibility of hiring 2,000 camels, but that 1,000 might be bought in the course of a month and at a *minimum* price of 100 *roubles*. There were contractors, however, one of whom would undertake to furnish 150 wagons in a month at a price of 800 *roubles* each with horse and harness, if transport to the east coast were provided for them and Government foraged the horses from the day of their delivery at Baku or Petrovsk, while another would undertake the transport of stores from Chikishliár to Duz-Olum on payment of 2 *roubles* 50 *kopecks* per *pud*, to Bámi for 5, and to Gok-Tapa for 8 *roubles* per *pud*; || and a third would carry stores on wheeled carriages from Chikishliár and Duz-Olum to Gok-Tapa on payment of 2 *kopecks* per *pud* and per *verst* and an advance to him of $\frac{1}{4}$ of the sum contracted for. When all these contractors were rejected as men without sufficient guarantees, a new one appeared, a certain Turkumán, named Muhammad-Oráz, who offered to buy 2,000 camels in 20 days at a price of 90 *roubles* each, the camels rejected by a board to be replaced by serviceable ones, and he to receive 50 *kopecks* per camel for his trouble. He did not wish an advance of money to be paid to him, and asked for persons with full powers to be sent with him.¶

The Chief Controller, who was acquainted with all these negotiations, expressed his opinion that it was better for Government to buy 2,000 camels, as their purchase would cost 180,000 *roubles*, and the hire of drivers and their rations for two months would cost 20,000 *roubles* (at 30 *roubles* per man per month, and supposing one driver to 6 camels), total 200,000 *roubles*. In that time they could transport 40,000 *puds* (12,800 cwt.) from Chikishliár to Gok-Tapa, making the cost of a *pud* 5½ *roubles*. On the other hand, the transport of 40,000 *puds* to Gok-Tapa by hired transport at 8 *roubles* a *pud* would cost 320,000 *roubles*, so that Government would save 120,000 *roubles*.

As the Turkistán detachment, which would require 1,920 cwt. of oats, would have to be sent home shortly, and it was proposed to send a

* Telegram from Bámi, dated 21st January (2nd February) 1881.—*Author*.

† Telegram from Vachnadze, dated 23rd January (4th February).—*Author*.

‡ Telegram from Colonel Ivánoff, No. 327, dated 1st (13th) February 1881.—*Author*.

§ From Colonel Grodekoff to Lieutenant-Colonel Doie, dated Bámi, 27th and 28th January (8th and 9th February) 1881.—*Author*.

|| Telegram from Lieutenant-Colonel Doie, No. 178.—*Author*.

¶ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 38, Part II, pages 359, 366, and 376.—*Author*.

large number of horses belonging to the troops about to be moved to the west coast of the Caspian through Bámi, and large quantities of forage would be required for them, while there were actually at Bámi on the 3rd (15th) February only 880 cwt. of oats, Grodekoff made arrangements for the purchase of 1,000 camels, for which were assigned 50,000 *roubles*, of which 2,000 were in bank silver. This purchase did not exclude the possibility of sending waggon transport from the Caucasus. When General Pávloff arrived at Bámi, Grodekoff therefore requested him to send 300 regimental waggons with harness, horses, and drivers, and based his demand on the following considerations.

If the cost of a waggon with harness and horses were taken at 700 *roubles*, 300 of them would amount to 210,000 *roubles*. The keep of the horses up to 1st (13th January) 1882 would cost about 300,000 *roubles*, making a total of 520,000 *roubles*. On the other hand the transport of 420,000 *puds* of stores (134,400 cwt.) at 8 *roubles* per *pud*, as proposed by the Trans-Atrak Yamúts, would cost 3,360,000 *roubles*.*

On the 24th January (5th February) General Pávloff telegraphed to Prince Melikoff about sending 300 waggons and 1,200 horses from the Caucasus, pointing out that the necessity for these would present itself in the beginning of March, and that from that time till the beginning of autumn waggons would be the only means of supplying all the wants of our troops on the lines of communication and at the advanced points.

According to the information collected by the Chief of the Staff from the Governors of Baku, Eriván, and Elisavetpol, the price of a waggon with harness and four horses would be on an average from 700 to 750 *roubles*, and the fulfilment of the order would take from three weeks to a month. As the collection at the receiving points of the purchased waggons would require not a little time, and the formation of separate convoys out of them and the assignation to these of drivers from the different corps presented various difficulties and disadvantages, Prince Melikoff thought it better to form the wheeled transport required for Trans-Caspia out of the regimental waggons of the 19th, 20th, and 21st Divisions. He, therefore, gave the following orders on the basis of information given by the Divisional Commanders.

(1) The 300 waggons, &c., will be furnished as follows:—

19th Division	...	...	113 waggons,	452 horses,	and 124 drivers.†
20th "	...	...	107 "	428 "	" 118 "
21st "	...	...	80 "	320 "	" 88 "

(2) The purchase of horses will be carried out by Divisional Commanders. The average cost of each horse with its transport to head-quarters of regiments will not exceed 100 *roubles*, except for those purchased by the Commander of the 19th Division, who will be allowed 5 *roubles* extra per horse in consequence of the circumstances pointed out by him. In addition, travelling money will be granted to the officers detailed by him to buy horses, and will be borne by Government as an extra charge over and above the 105 *roubles*.

(3) For the expenses of the whole operation will be assigned (out of the credits set apart for the Trans-Caspian Expedition), and placed at the

* Report from Colonel Grodekoff to General Pávloff, No. 23.—*Author*.

† One driver per waggon, and one spare driver to every 10 waggons.—*Author*.

disposal of the Commanders of Divisions, a sum of 139,500 *roubles* as follows :—

	19th Division.	20th Division.	21st Division.
For the purchase of horses	47,460 <i>roubles</i>	42,800 <i>roubles</i>	32,000 <i>roubles</i>
For the repair of waggons	...	...	4,000 "
For travelling expenses of officers	740 "	...	...
For supply of horses for a month and their journey to ports, in advance	5,000 "	5,000 "	2,500 "
Total	53,200 <i>roubles</i>	47,800 <i>roubles</i>	38,500 <i>roubles</i>

(4) The waggons and their horses will be ready to leave regimental headquarters; with the 19th and 20th Divisions by the 1st (13th) March, and with the 21st Division by the 21st February (5th March). Arrangements for the despatch of the transport from its stations to the ports of embarkation: Petrovsk and Baku (the 84th Shirván Regiment) will be left to Commanders of Divisions, but the waggons belonging to each regiment will be formed into a special convoy, except those of the Crimean and Stávropol Regiments, which will be united into one. A special officer will be told off to each convoy till it is handed over in Krásnovodsk.

(5) Till their departure from their stations, the waggons and horses will be in charge of committees, and will be inspected by the Brigade or Divisional Commanders. Afterwards they will be inspected by special committees at the ports of embarkation, Baku and Petrovsk.*

This transport arrived in Trans-Caspia at the end of April, and was handed over to the Intendant of the Force. In expectation of its arrival, an officer had been sent over to Baku to buy tools for the workshops required to keep such a large number of waggons in repair.

While these arrangements were being made, General Skobelev asked Major Spolatskog for precise information as to the number of camels which could be delivered by the Tekkes, the dates of delivery, and the conditions of hire to carry stores from the terminus of the railway to Askhabád, and he insisted upon the necessity of obtaining camels for the Turkistán detachment. At this time (in February) the Tekkes with their cattle had begun to come in large masses into the *oasis*; and, as they required grain, they willingly began to hire out their camels. In consequence of this the purchase of camels from the Yamúts was stopped, all the more so as Muhammad-Oráz, who had been sent across the Atrak, had proposed to buy camels at a medium price of 120 *roubles*, 140 to 150 being given for a good animal.†

General Pávloff had been sent to Trans-Caspia in consequence of the death of General Petrúsevitch, who had been the assistant of the Commander of the Expedition in military and civil matters, and in place of whom General Skobelev requested the Commander-in-Chief to send some one capable of replacing him in the very possible event of his own death. The choice fell upon Pávloff, who was placed at General Skobelev's disposal. He arrived at Krásnovodsk on the very day of the capture of Gok-Tapa, but still the Commander-in-Chief ordered him to join General Skobelev with a view to his explaining what was

* Report from General Prince Melikoff, A. D. C. to the Commander-in-Chief of the Army, No. 404, dated 12th (24th) February 1881.—*Author*.

† Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 38, Part II, pages 375 and 376; Instructions from Skobelev, No. 1029, dated 6th (18th) February 1881; Telegram from Doie, No. 266, dated 6th (18th) February.—*Author*.

to be done after the fall of Gok-Tapa, both in the way of establishing ourselves firmly in the *oasis* and the number of troops required for that purpose, and as regard the measures necessary to supply the troops remaining in the *oasis* with provisions and transport, and also with a view to General Skobelev's being able to consult him personally as to the future administration of the country, and the choice of a person for this purpose.

On the way from Krásnovodsk to Gok-Tapa General Pávloff fell ill, and on arriving at Bámi on the 23rd January (4th February) was unable to go further. He, therefore, requested General Skobelev to come to Bámi, if possible, as he wished to converse with him on the following points :—(1) What he considered necessary to ask for from the Caucasus authorities for the troops who were to remain in the *oasis* and on the lines of communication as regards their supply with transport, and for what number of troops it was necessary to prepare and transport all necessary equipment. (2) What system of administration it was best to establish in Trans-Caspia, including the occupied *oasis*. (3) Who out of the persons, known to him, he considered best fitted to undertake the government of the country and the command of the troops on the attainment of the first of the objects of the Expedition,—the conquest of the *oasis* and the establishment of our power in it. (4) Whether our position in the *oasis* did not necessitate our taking extraordinary measures with regard to Marv and Persia.

The result of this consultation was to be forwarded as soon as possible to St. Petersburg, and Pávloff was to return to the Caucasus to take measures on the spot to carry out all the plans desired for the Government of Trans-Caspia. The sooner, therefore, that Pávloff consulted with General Skobelev, the sooner the measures to be taken in the Caucasus could be carried into effect, and the sooner would the numbers of the troops to remain in the country be settled.*

General Skobelev, who was then at Askhábád, in reply to his telegram of the 20th January (1st February) to the Commander-in-Chief, in which he wrote that it was necessary to settle in the immediate future many questions of Imperial moment involving a preliminary fixing of principles,† received from the War Minister the following instructions :—"Supposing that these questions relate to the definition of our future position in Trans-Caspia in consequence of your brilliant victory over the Tekkes, His Majesty the Emperor awaits your ideas on this subject, and in the meantime has ordered me to communicate to you one general principle, *viz.*, to try to take up such a position in Trans-Caspia that the Tekke *oasis* may be held with the least expenditure of men and money, and that the order which you have succeeded in establishing in the country may be continually maintained. These were the objects with which the expeditions of 1879 and 1880 were undertaken, and they must not now be departed from. In any case, two conditions must strictly be adhered to : under no pretext must any movement of troops be permitted to the east of the limits of the Tekke *oasis*, and on no account must Persian territory be violated. Our Ambassador at Teherán will enter into negotiations with the Persian Government for the delimitation of a frontier, and will communicate with you as to the bases on which this is to be established."‡

* Letter from Pávloff to General Skobelev, dated Bámi, 24th January (5th February) 1881.—*Author*.

† Telegram No. 452.—*Author*.

‡ Telegram from Count Milutin to General Skobelev, No. 98, dated 26th January (7th Feb.

On receiving Pávloff's letter, General Skobelev left Askhábád on the 25th January (9th February), having given over the command of the force to Colonel Prince Eristoff, and he arrived at Bámi on the 2nd (14th) February.

At this time the situation in Trans-Caspia was as follows :—

The troops were thus distributed :—(1) In camp at Gok-Tapa under Colonel Artsishevski, $27\frac{1}{2}$ companies, 7 *sotnias*, 73 guns.* (2) At Kuhna (Old) Gok-Tapa under Colonel Kuropátkin, the Turkistán detachment, which was preparing for its return march, 3 companies, $2\frac{1}{4}$ *sotnias*, 2 guns.† (3) At Askhábád, under Colonel Prince Eristoff, $8\frac{1}{2}$ companies, 4 *sotnias* and squadrons, 10 guns. ‡ (4) On the Atrak and Micháelovsk lines and on that from Bámi to Gok-Tapa the distribution of the infantry was the same as in December 1880, except that Kalát had been abandoned and the 4th company Crimean Regiment had on the 5th (17th) January joined the force besieging Gok-Tapa, the Trans-Caspian Battalion had been moved to Bámi *en route* to the Micháelovsk line to relieve the Stávropol Regiment, which had been told off to occupy Askhábád, and the 10th company Crimean Regiment had been detailed as the garrison of Sámurskoye. The distribution of the cavalry was as follows :—Bámi, 1st *sotnia* Poltáva and $\frac{1}{2}$ of 5th *sotnia* Taman Cossacks ; Archmán, $\frac{1}{2}$ of 5th *sotnia* Taman Cossacks ; Durun and Sámurskoye each $\frac{1}{2}$ of the 3rd *sotnia* Taman Cossacks.§

In place of General Annenkoff, commanding the lines of communication, who had proceeded to St. Petersburg, to recover from his wound, on the 20th January (1st February) Colonel Ivánoff of the General Staff had been appointed. Colonel Barmin had been appointed commandant of the Micháelovsk, and Lieutenant-Colonel Doie of the Atrak line, the latter after the death of General Bronevski.

The non-mobilised battalions of the 21st Division had, in consequence of sickness and losses in action, become so weak that their companies could not turn out more than 25 files, and the mobilised battalions of that Division and the 3rd Battalion Crimean Regiment, which had taken part in the siege of Gok-Tapa, had also suffered great losses. This had forced the Commander of the Expedition, before the fall of Gok-Tapa, to ask for drafts both of men and of officers (28) to be sent from the Caucasus. On the 31st January (12th February), the drafts for the battalions of the Apshehon and Daghistán Regiments and parts of those for the Stávropol regiment and artillery, in all 8 officers and 739 men, arrived at Krásnovodsk. After that, on the 4th (16th), and 5th (17th) February, there arrived 13 officers and 577 men, giving a total of 21 officers and 1,316 men. The drafts which had arrived on the 31st January (12th February) were ordered to be detained at Krásnovodsk, except those for the Stávropol Regiment, which were to be sent forward, and on the 12th

* 9th Company Crimean, 3rd Battalion Stávropol, 3rd and 4th Battalions Apshehon, 1st and 2nd Companies Daghistán, 1st and 3rd Battalions Sámur and 3rd Battalion Shirván Regiments, $\frac{1}{2}$ sapper company, 1st, 2nd, and 6th *Sotnias*, Taman, 1st and 3rd *Sotnias*, 5th Orenburg, and 5th and 6th *Sotnias* of Lába Cossacks, 3rd and 4th Batteries, 19th, $\frac{1}{2}$ of 1st and 6th Battery 21st Brigade, Naval Battery, 1st, 2nd, and 3rd Mobile Batteries, 16 mortars, 45th Divisional Ammunition Column, and the heliographic detachment.—*Author*.

† 1st and Rifle companies 13th, and 3rd company 5th Turkistán Line Battalion, 1st *Sotnia* 1st Orenburg, 5th *Sotnia* 2nd Ural Cossacks, Rocket Section, and 1 division 4th Battery, 1st Turkistán Artillery Brigade.—*Author*.

‡ 4th Battalion Daghistán, 1st Battalion Shirván Regiment, $\frac{1}{2}$ sapper company, division of Dragoons, 2nd *Sotnia* 5th Orenburg, 2nd *Sotnia* Poltáva Cossacks, 4th Battery, 20th Brigade, and Horse Mountain Division.—*Author*.

§ Instructions to Artsishevski, No. 390, dated 22nd January (3rd February) 1881.—*Author*.

(21th) February, after the consultation between General Skobelev and Pávloff as to the return of the troops to the west coast of the Caspian, a telegram was sent to Tiflis to stop more drafts being sent from the Caucasus for the troops who were to return.*

As military operations were at an end, the volunteer detachments of Sub-Lieutenant Voropánoff, and *Yesaul* Tserenjálloff, the Rocket Battery, and the 1st, 2nd, and 3rd Mobile Batteries were broken up.

On the 30th January (11th February), the number of sick and wounded in the various hospitals and ambulances was as follows:—

	Officers.	Men.
In the United Hospitals of the Red Cross and Sámur Regiment	15	131
In No. 4 Temporary Field Hospital	4	148
In the Bámi Hospital	5	41
In the Duz-Ohun Half Hospital	2	72
In the Khwája-Kala Hospital	...	85

In consequence of the unsanitary state of the places round Gok-Tapa, and especially on the lines of communication, typhus had broken out, though not yet in an epidemic form. To improve the sanitary state of the troops, the camp at Gok-Tapa had been moved from the trenches to a fresh position on the Oporni stream, to the left of the Stávropol redoubt, and from it the garrison of the post on the hill of Gok-Tapa was relieved every day. To give more open space in the interior of the fortress, all the *kibutkas* were taken out of it, and they were handed over partly to the troops and partly to the returning inhabitants, and parts of the rampart were demolished.

The sick and wounded were removed from the medical establishments at Gok-Tapa to No. 4 Temporary Field Hospital and thence to Bámi, 155 men in all being sent to the rear from Gok-Tapa between the 15th (27th) and 26th January (7th February). These were carried from Gok-Tapa and Sámurskove, on the carts and waggons of the Red Cross, and from Bámi on Sansieff's *arabas* and on the waggons of the Red Cross. On the 17th (29th) January, the plenipotentiary of the Red Cross Society, Prince Shakhovski, was appointed Superintendent-in-Chief of the evacuation service.

The* measures taken to supply the troops with provisions and transport have been mentioned above.

The railway, which on the 29th January (10th February), had been completed to Aidin, had not been pushed further forward for want of sleepers.

The telegraph line from Bámi had been brought up to Archmán, telegraph poles having been obtained by destroying houses at Murcha and Durun, and, in addition, Colonel Artsishevski had discovered wood in the Chuli gorge, had made a road thither, and had sent the 3rd Battalion Stávropol Regiment to cut telegraph poles.† The permanent telegraph line, so far as it was finished, had been handed over to the administration of the Minister of Posts and Telegraphs, and had been included in the Tiflis district lines. In consequence of its being detached from the others, a special telegraph official, Baron Vietinghoff-Scheel, had been appointed to superintend on the spot, the correspondence on the Trans-Caspian lines, and the carrying out of the regulations for stations.‡

* Telegrams from Navrotski, dated 7th (19th) February, No. 484, Pávloff No. 337, Ivánoff No. 326, and Grodekoff No. 547.—*Author*.

† Report from Artsishevski, dated 4th (16th) February 1881, No. 371.—*Author*.

‡ See Appendix 83.—“State of the Telegraph lines and stations constructed by the War Department in Trans-Caspia with a view to their being made over to the Department of the Minister of Posts and Telegraphs.” General Skobelev had asked in October 1880 for an inspector of telegraphs for the district to be appointed, and for all stations to be put under the Tiflis administration.—*Author*.

During January all was quiet on the lines of communication, and only on the 8th (20th) did eight horsemen approach a post at Khwája-Kala, and a band of 50 men was noticed near Khár-Olum.

It had been decided to allow the Trans-Atrak Yamúts to nomadize in our territory, provided they paid to Government a tax of 1 *rouble* per *kibitka* per month.*

At Bámi, and afterwards Gok-Tapa, whither General Skobelev returned on the 6th (18th) February to finish up the military operations, it was decided in consultation with General Pávloff to leave in Trans-Caspia 6 battalions of the 19th Division, the Taman Cossack Regiment, two *sovnias* of the Lába Cossacks, and the 4th Battery of the 19th and the 6th of the 21st Artillery Brigade. The troops remaining were to be distributed as follows:—Railway Battalion on the Micháelovsk line, from Micháelovsk to Aidin and further as the construction of the railway advanced; at Kazánjik and Kizil-Arvát, 2 companies of the Trans-Caspian Battalion, and 2 companies of the same at Krásnovodsk; on the Atrak line, on which the stations of Karája-Bátir, Chát, Társakán, and Band-Hassan were to be abolished, 5 companies of the Crimean Regiment and 2 *sovnias* of Lába Cossacks; on the line from Bámi to Gok-Tapa, 7 companies of the Crimean Regiment and 2 *sovnias* of Taman Cossacks; at Askhabád, three battalions of the Stávropol Regiment, 3 *sovnias* of Taman Cossacks, and two batteries.

The battalions of the 21st Infantry Division, the dragoons, the Poltáva and Orenburg Cossacks, and all the rest of the field artillery were to be sent over to the west coast of the Caspian in February and March. The 4th Battery 20th Brigade was to hand over eight ammunition waggons to the 4th Battery 19th Brigade, so that the latter might have twelve such waggons, and the (54) horses for those waggons were to be taken from the 45th Divisional Ammunition Column. Four pack-animals per gun were to be added to the 6th-21st Brigade, so as to have seven ammunition pack-horses for each gun, the horses to be taken from the 4th-20th Brigade. In both remaining batteries, five divisions were to be formed, 45 horses being taken for this purpose from the 45th column and the 4th-20th Brigade. These (reserve) divisions were to be formed, so as to enable eight bronze guns and eight two-wheeled ammunition carts to be horsed.

For the care of the artillery depôts at Askhabád and Bámi, a *personnel* was told off from the company of the Gunib Fortress Artillery, and in the former depôt were to be kept all the bronze guns, mortars, rockets, and ammunition of the former mobile batteries and camel and other harness for the guns and waggons. In the Bámi depôt were to be collected all the new artillery stores sent over from the west coast of the Caspian and all those remaining at Chikishliár, Chát, Duz-Olum, and Bámi itself. Artillery workshops, fitted with *matériel* sent from Petrovsk, were to be formed at Bámi, and artificers were to be sent up temporarily from Petrovsk to Askhabád to repair the artillery *matériel* there.†

As after the operations had ceased, there remained about 3,400,000 rounds of infantry and cavalry Berdán and more than 15,000 of artillery ammunition, it would not be necessary to send over for the first few years any more ammunition. The batteries of steel guns (except the heavy battery of the 21st Brigade) were to leave all their ammunition in Trans-Caspia on starting for the Caucasus.

* Telegram from General Skobelev to Doie, No. 1023, dated 6th (18th) February 1881.—*Author*.

† Report of the Chief of the Staff, dated Gok-Tapa, dated 9th (21st) February 1881.—*Author*.

In view of the extreme dearness of all necessities of life, field rations for one year were to be left for all troops and administrations temporarily remaining in the country. For those troops permanently remaining in the country and for the troops at Krásnovodsk and at Mangishlák, field rations were to be abolished. As regards the supply of provisions in kind to the men, the experience of the Expedition had shewn that the established issue of sea-rations was too large; the soldier could not eat all the different articles supplied in a day. The following was considered a sufficient ration:—

Flour and biscuit as laid down, groats, 17·2 oz., *ghi* ·75 oz., cabbage ·45lb., pepper in grains ·024 oz., laurel leaves ·024 oz., salt 1·5 oz., fruit acids ·6 oz. (or $\frac{1}{8}$ measure of vinegar), meat ·9lb. *per diem*, sugar in winter 1·8 lbs. (in summer 2·7lbs.), and tea 4·8 oz. per month. All other objects composing the ration, such as rice, garlic, onions, wheat flour, and spirits, were to be struck out.

Supply-depôts were to be established at Krásnovodsk, at Micháelovsk, at the terminus of the railway, and at Askhábad, all of the 2nd class, with expense stores at Chikishliár, Duz-Olum, Yágli-Olum, Khwájá-Kala, Bámi, Durun, and Gok-Tapa. The troops stationed at places where there were no supply-depôts were to draw their supplies from the nearest magazines, using their company horses for the purpose, and for this there were to be left 2 park waggons per company and 2 for the Staff of each battalion, in all 10 per battalion and 2 per battery; each *solnia* was to have one park waggon, and the usual establishment of pack-horses.

There was no immediate urgency for providing provisions and other supplies. The troops detailed to remain in the country (8,000 men) were provided with flour and groats to last till the 1st (13th) January 1882, consequently it was only necessary to send supplies of those articles to last from the 1st (13th) January to the 1st (13th) July 1882. Of other articles, over and above those in the depôts, it was necessary to send to Trans-Caspia:—sugar 416 cwt., tea 192 cwt., *ghi*, 1,408 cwt., pepper 28·8 cwt., laurel leaves 32 cwt., fruit acids 960 cwt., and vinegar 7,290 gallons. The troops were to supply themselves with vegetables and cabbage from their own kitchen gardens, with the exception of those on the Atrak line (for whom a supply to last till 1st (13th) July would have to be delivered at Chikishliár), and those at Krásnovodsk and on the Micháelovsk line (for whom a supply for a year would have to be sent to Krásnovodsk). Directly after the capture of Gok-Tapa, orders had been sent to Moscow, Baku, and Persia for seed for kitchen gardens.

There was an 8 months' supply of oats in the district. Up to the 1st (13th) July 1882, 110,400 cwt. would be required, and General Skobelev had taken measures to have 16,000 cwt. prepared in Persia, while the remainder was to be got ready by the Caucasus Intendence. Hay was to be collected locally* in the *oasis* and in the valleys of the Chandir and Sumbár, whither, after the capture of Gok-Tapa, detachments had been sent to cut the old grass.

If it were taken as a basis of calculation that, under the climatic conditions of Trans-Caspia, $\frac{1}{12}$ th of the total strength would always be in hospital, then, with a constant evacuation of the sick to the west coast of the Caspian, it would be necessary to have hospital accommodation up to 400 beds, to be divided as follows:—At Askhábad, Bámi (on the completion of the railway, to

* Telegram from General Skobelev to the Caucasus Intendence, dated 8th (20th) February

Kizil-Arvát), and Krásnovodsk, hospitals with 100 beds each. At Chikishliár 50 beds, and at Duz-Olum and Gok-Tapa 30 beds each. All these hospitals were to be formed by the sanitary establishments already working in the district; the other military field hospitals were to be closed, and were to leave their stores and 200 spare beds in Trans-Caspia.

Local treasuries were to be established on the same footing as the district treasuries of the Empire, one at Krásnovodsk, and the other at the Provincial Head-quarters. They were to be placed under the Baku Financial Circle.

Telegraph offices were to be maintained at Krásnovodsk, at all the stations on the railway, at Bámi, Gok-Tapa, Askhabád, Chikishliár, Duz-Olum, and all the other stations on the Atrak line.

After the departure for the west coast of the 8 battalions of the 21st Division, of the artillery, cavalry, and spare hospitals a large number of *kibitkas*, *gulameikas*, and tents remained in the district, which amply sufficed for the troops remaining behind.*

The Field Control was closed at the same time as the other departments of the Field Force formed for the Expedition. The verification of accounts of receipts and payments was then handed over to the Baku and Tiflis Financial Circles according as the expenditure was incurred by the civil or military administration.†

Finally, a project for the temporary administration of the Trans-Caspian District and for the establishments of the various administrative services was drawn up. As bases for this were used the temporary rules for the administration of the Trans-Caspian District, the temporary rules for the administration of the Trans-Caspian Military Division, the establishments for the field administrations of the Trans-Caspian Field Force, and the data which had been collected in January.

At Gok-Tapa General Skobeleff was met by a large crowd of many thousand Tekkes returning from the desert. At this time Major Spolatbog had issued authority for some 1,700 *kibitkas* to settle. The report of our humane treatment and of the returning fugitives being supplied with seed for sowing, *kibitkas*, clothes, and household utensils, had spread not only to the Tajand but even to Marv, and fugitives began to return from the latter. To induce the inhabitants to return more quickly to their houses General Skobeleff issued a new proclamation to the people of Akhál as follows: "The brother of the great Russian Emperor, the Lieutenant of the Caucasus, to whom the people of Akhál are now subject, in his boundless solicitude for the people now entrusted to his care, has sent hither a person trusted by him‡ to learn all the needs of the Tekkes. The Lieutenant of the Caucasus has ordered grain to be given to the people, and this has been done. I am convinced that the Tekkes will value the mercy shown them by the brother of the Emperor. Wise people have returned to their houses. There are still, however, some foolish persons who listen to various passers-by and will not settle in the Atak. I warn them that I have fixed a time by which they must return to settle in the *oasis*. All who do not appear by that time will be treated as traitors and vagabonds. And I, you know, always mean what I say."

* Diary of the Asiatic section of the General Staff, 1881, No. 13, pages 54-72.—*Author*.

† Report from Cherevánski to the Commander of the Expedition, No. 118, dated 12th February 1881.—*Author*.

‡ Here General Pávloff, who was represented to the people as the Lieutenant sent from the Caucasus, is meant.—*Author*.

Strict orders were again issued to the troops to treat the people kindly and to take nothing without payment. On the 6th (18th) February a bad case of ill-treatment was punished by the culprit being shot. Bombardier Lavrenti Titoff of the 3rd Mobile Battery had rushed in a drunken state into the *kibitkz* of a Tekke family, killed a man, and wounded two women.*

The *oasis* assumed a perfectly peaceful appearance, and the Tekkes proceeded to irrigate and cultivate their fields, to set their mills going, &c. Single horsemen could ride about without danger, and the escort for convoys was reduced from 25 to 15 men. Postal communication between Gok-Tapa and Askhabád was kept up by *Jigits* hired from the Tekkes.

On leaving for Bámi to meet the Chief of the Staff of the Caucasus Military District, General Skobelev, as above stated, had handed over the command of the troops at Askhabád to Colonel Prince Eristoff. At the time of the departure of the Commander of the Expedition, the garrison of Askhabád had provisions to last till the 6th (18th) February, and three days afterwards 500 camels arrived from Gok-Tapa with supplies for ten days for 4,000 men. On their arrival the force, 1,500 strong, was provided for till the 15th (27th) March. It had meat for fifteen days, and within that time Gromoff was bound to deliver 500 head of cattle; if, however, for any cause, Gromoff failed to carry this out, Prince Eristoff was authorised to buy meat in Persia. The latter was given the following instructions. He was forbidden to make any movements except reconnaissances to Izgand, Kálta-Chinár, and Gávárs, and movements to the latter were not to be undertaken with a smaller force than 2 companies, with the division of dragoons and artillery. Tekkes arriving at Askhabád to make their submission were to be assisted to settle in their former houses, and those whose houses lay near Gok-Tapa and beyond it towards Bámi were to be sent to Major Spolatbog at Gok-Tapa. No Kurds were to be allowed to plunder the Tekkes, and offenders were to be brought before a court-martial and their sentences carried out, a report only being made to General Skobelev. As often as possible scouts were to be sent to Annau, Gávárs, and into the desert. A large sum out of the extraordinary allowance was left at Prince Eristoff's disposal.†

According to those orders, on the 5th (17th) February Prince Eristoff left Askhabád with two companies, 1st Battalion Shirván Regiment, the division of dragoons, and a division of the 4th Battery 20th Brigade, to make a reconnaissance towards Gávárs, 30 *verst* (20 miles) off. On the capture of Gok-Tapa, the inhabitants of Gávárs had fled to Daragaz; but hearing that the Tekkes had been permitted to settle on their former lands, they began to return home again. About a *verst* ($\frac{1}{3}$ mile) from the village the detachment was met by all the inhabitants, and the oldest of them addressed Prince Eristoff as follows: "You have been sent here by our conqueror. In the name of all the people of Gávárs I congratulate him, you, and your troops. God has done everything well for you. The best men of Gávárs went to help to defend Dangil-Tapa and most of them have perished there. You have taken the hitherto impregnable Dangil-Tapa. What now remains for us who still live? We bow ourselves to our conquerors and ask pardon for our former misdeeds. We ask you to request the General to suffer us to go on

* General Order No. 63, Trans-Caspian Field Force, dated 7th (19th) February 1881.—*Author.*

† Instructions to Prince Eristoff, No. 817, dated 28th January (9th February) 1881.—

with our husbandry. Then we shall honourably fulfil our promises and carry out his demands."*

Thus the whole *oasis* had been traversed by our troops, and there was no point where our power was unknown.† After passing the night at Gávárs, Prince Eristoff's force returned to Askhábád.

Of the Tekke fugitives, about 2,000 *kibitkas* still remained on the Tajand under Taghma-Sirdár, who prevented them from returning by saying that all who return would be killed. Those partisans of Taghma-Sirdár, taking advantage of the tract of land between Askhábád and Gávárs being unoccupied by us, began to appear there and carried off several of our Tekkes into captivity, and on the 9th (21st) February the interpreter attached to the Askhábád Force, Ensign Guzelkhánoff (a Tatar of Daghistán), who had been sent by Prince Eristoff to Daragaz to buy barley, was seized by them on the road between Annau and Kálta-Chinar and carried off to Marv by four Tekkes.‡ The Akhál-Tekkes who had returned to the *oasis* on hearing of this asked for arms to fight against the people of Marv, as they feared that they might be confounded with the raiders. Any movement of our troops beyond the *oasis* was forbidden by Imperial command. If we moved on to the Tajand we should inevitably come into collision with the people of Marv, and we had no means of operating against that place. The preparations for such an expedition would take at least a year, and for a movement on the Tajand only 8 companies, 8 guns, and 6 *sotnias* with 10 days' supplies could be spared. Such a force would have to return the day after it reached the Tajand, and experience had shewn that any movement in retreat in Central Asia is only looked upon in a bad light. General Skobelev therefore resolved to confine himself to the points already occupied by us in the *oasis* and not to move on to the Tajand without orders; but if the people of Marv dared to move beyond Gávárs, they were to be attacked.

The disquieting rumours from the Tajand did not, however, stop the departure of the troops for the west coast. The 1st Battalion of the Daghistán and the 4th of the Apsheron Regiment, and half of the 1st Battery 21st Brigade had already moved to the ports of embarkation§ and the division of dragoons had orders to leave Gok-Tapa on the 12th (24th) February for Bámi and Krásnovodsk. The waggons on which the dragoons were carrying their baggage had already gone some distance on the road to Sámurskoye when a report, dated 11th (23rd) February, was received from Prince Eristoff at Askhábád to the effect that a party of the people of Marv, consisting of 7,000 infantry and 6,000 cavalry, had left that place and were marching on Askhábád with a view to attacking it. The probability of this report being true, was increased by the fact of the Persian traders who had come to Askhábád from Daragaz having suddenly left the former place.|| At the same time, from information gathered from Tekkes at Gok-Tapa who had arrived from the Tajand, it was ascertained that about 3,000 of the men of Marv had actually been in that *oasis*, and that, on the conclusion of their agricultural labours, they had departed, leaving only 400 men behind as a guard over the

* Report from Prince Eristoff, No. 36, dated 7th (19th) February 1881.—*Author*.

† O'Donovan wrote in October that one defeat at Gok-Tapa would be sufficient to completely crush the resistance of the Tekkes, as all their armed strength was concentrated there. After their defeat their cavalry had retreated on Marv, but their infantry had fallen into our hands.—*Author*.

‡ Report from Prince Eristoff, No. 38, dated 9th (21st) February 1881.—*Author*.

§ Telegram from Pávloff to the Commander-in-Chief, No. 46, dated 13th (25th) February 1881; and from General Skobelev, No. 856, dated 5th (17th) February 1881.—*Author*.

|| Report from Prince Eristoff, No. 65, dated 11th (23rd) February 1881.—*Author*.

fields. The Tekkes who gave this information had heard nothing of an intention of attacking Askhábád, and did not think such an attack possible, although bands of from 5 to 10 marauders might probably appear.* The Commander of the Expedition, who had intended to go to Krásnovodsk with General Pávloff, put off his departure, as he at that time received instructions from the Ambassador to reconnoitre in the direction of Gávárs. He ordered the baggage of the dragoons to turn back, and, as an answer to the disquieting rumours from Askhábád, resolved to move all his disposable cavalry and the bronze guns up to that place.† Having arranged that General Pávloff should go alone to Krásnovodsk, on the 12th (24th) February the Commander of the Expedition marched for Askhábád with the Division of Dragoons, the 2nd and 3rd *sotnias* 5th Orenburg Cossacks, and all the bronze guns (except 9-pounders left behind as armament at Dangil-Tapa, and 6 mortars‡), and arrived there on the 14th (26th) February.

The country to the east of Gávárs and as far as Kaakhka may be considered as a prolongation of the Akhál-Tekke *oasis*, for it belongs to the Akhál-Tekkes, who have lived there from time immemorial. According to the information gathered by the Staff in 1880, from Askhábád to Lutfábád, a Daragaz fort, the distance is about 80 *vershs* (53½ miles), and that beyond the latter lived Akhál-Tekkes, whose occupation was agriculture, their tribute to the Persian Government being $\frac{1}{10}$ of their crops for the right of cultivation, while at Kaakhka lived Alilis who paid taxes to the same extent.§ From the lists of population laid before the Commander of the Expedition in February 1881 by our Agent Nasirbekoff, it appeared that only two hamlets in the *oasis*, Lutfábád and Shilgián, were occupied by Persians, who paid tribute to the Persian Government at the same rate as the others. Of the other places up to Kaakhka, the village of Meili was occupied by Turkumáns of the Meili clan, and Kaakhka by Alilis, while all the others, Chukhur-Agil, Kaushid, Darugán, Khwája-Kala, Artik, Kessovlu, Kala-i-Mahtum, Kozgán, Kala-i-Mir, Shor-Kala, Kuren, and Makhilu, were inhabited by Akhál-Tekkes. Beyond Kaakhka were settlements of Marv-Tekkes, such as Khwája-Ahmad, Dushák, Chahár-Deh, Maana, and Chácha, and the Persian fortress of Sarakhs. All these Persia considered as belonging to herself under the name of the Atak, *i.e.*, the *floor of the Empire*. The Atak, thanks to its streams and the drainage from the hills, is remarkable for its fertility.

The Turkumán tribes have periodically settled in the Atak and left it again. Of late years (1873-74) the former ruler of Daragaz, Daulat-Murád-Khán, drove them from the Atak by a series of raids, but, after his fall, his successor, Alayár-Khán, permitted them to return to their houses and promised them his protection, but required from them a tax of a tenth part of their crops. Since that time the ruler of Daragaz, as Nasirbekoff pointed out, has unlawfully raised this tax and given no account of it to Government, but has considered it as what is called in Persian, *medakhil-shekhshi*, *i.e.*, a tax for his own

* Notes by Colonel Artsishevski in the Diary of the Staff of the Force, 1880, No. 8, Part II.—*Author*.

† Telegram from Pávloff to the Commander-in-Chief, dated 21st February (5th March) 1881.—*Author*.

‡ Only 6 mortars were moved up, as there were only 3 mortar platform-waggons, each of which could carry 2 mortars. Four mortars were ordered to be left at Gok-Tapa, and the others moved up to Askhábád by next convoy.—*Author*.

§ Notes by Yákhia-Bek-Tairoff. General Petrúsevitch's notes on Khurássán had not yet been published. In his conversations with General Skobelev, General Petrúsevitch had only casually touched on the Atak, as in the preparatory period of the Expedition it was not proposed to

benefit. "In a word," concluded Nasirbekoff, "the Atak is a possession of the Akhál-Tekkes.*"

In reality, the power of the Persian Government in the Atak was non-existent, and was only rarely, and then irresolutely, shewn. The power of the ruler of Daragaz extended over a very small radius only, and was so weak that the tax on cattle was not paid at all, and that on cultivated land only amounted to half of that laid down in the *Shariát* as *Khirúj* and *Tanap*.

The Tajand, according to the information collected in February 1881, is the extreme limit of Akhál, for Akhál, the Atak, and the Tajand have always been closely united together by frequent migrations of the Akhál-Tekkes. The resources of the Tajand cannot, however, be counted upon, as the nomads only encamp there temporarily. "The Tajand," according to Carl Defour, "yields nothing except water and hard soil underfoot."†

On the 15th (27th) February General Skobelev moved from Askhábád eastwards, meaning to traverse the whole Tekke *oasis* with a force composed of the division of dragoons, the 2nd and 3rd *sotnias* of the 5th Orenburg, and the 2nd of Poltava Cossacks, the Horse-mountain Division, and a division of the 4th Battery 20th Brigade, with one ammunition waggon. This force was provided with supplies for five days carried on horses, and neither baggage nor camp equipage was taken.

All the artillery horses which had brought up the bronze guns from Gok-Tapa to Askhábád, also the mortar waggons, ammunition waggons, and transport waggons were sent back on the same day under escort of a company of the 4th Battalion Daghistán Regiment and a section of Taman Cossacks. This transport was, after a day's halt at Gok-Tapa, to start again for Askhábád with ammunition for the bronze guns, the remaining mortars, and barley. As garrison there remained at Askhábád 7 companies, 3 sections of Taman Cossacks, 6 guns of the 4th Battery 20th Brigade, and all the bronze guns, under Lieutenant-Colonel Rutkovski of the Engineers, who had been ordered to draw up a project for a post at Askhábád to be garrisoned by 4 companies, a *sotnia*, and 10 bronze guns with an artillery store and a supply-depôt sufficient to hold 6 months' provisions for 3,000 men and 1,000 horses.‡

On the 16th (28th) February General Skobelev arrived at the ruined fortress of Bába-Durmaz, 38 *vershs* (25½ miles), from Gávárs, and on the 17th (29th), after a march of 29 *vershs* (19½ miles), reached Lutfábád (Babajik). The whole town came out to meet him, and the Elders presented an address running as follows: "We are ready to sacrifice ourselves to you! We, the inhabitants of Lutfábád, old and young, *Kázis*, *Hájis*, *Mulíahs* and all others will obey whatever orders you give. We, joyous and proud, have come out to meet the General. Therefore we, *Kázis*, *Hájis*, and *Elders*, have written this letter, and assure you how contented and thankful we are." Besides the inhabitants of Lutfábád, its Governor, Sayad-Ali-Khán, came out to meet General Skobelev, and a few hours later the Governor of Daragaz, Muhammad-Ali-Khán, also came to greet him. After friendly salutations, Muhammad-Ali-Khán, as is

* Letter from Nasirbekoff to Grodekoff, dated Mashad, 16th (28th) February 1881.—*Author*.

† Notes by Carl Defour about the Tajand, dated Kaaklika, 24th February (8th March) 1881.—*Author*.

‡ Instructions to Lieutenant-Colonel Rutkovski, No. 560, dated 14th (26th) February, and to Colonel Prince Eristoff, No. 561.—*Author*.

usual on such occasions, called himself the servant of the Russians, and asked for orders to be given him which he could think it his good fortune to carry out. Nevertheless he considered it his duty to remind General Skobelev, at the audience he had, that "you must know that the English also demand to be allowed to come here."

Next day an agreement was made with Muhammad-Ali-Khán and Sayad-Ali-Khán to furnish us with barley. The former promised to bring 500 Bujnurd *kharvars* (each 820·3 lbs. Engl.) of barley to Kálta-Chinár at a price of 30 *kráns* per *kharvar* within the next three months, and his colleague was to deliver 200 *kharvars* at 20 *kráns* each at the village of Artik immediately.*

While waiting for the decision of Government on the proposals made by him from Lutfábád (which will be mentioned later on), General Skobelev resolved not only to remain there but sent for 2 companies (1st and 3rd) of the Shirván Regiment from Askhábád, which arrived on the 21st (5th March). The force bivouacked in some gardens 200 paces from the gates of the town.

The daily ration of the troops was fixed as follows:—3 *chureks*,† ·9 lb. beef, ·75 oz. *ghi*, ·45 lb. rice, 1·5 oz. salt, 1·2 oz. pickled beetroot, and ·75 oz. garlic *per diem*, with ·45 lb. tea and 1·8 lb. sugar a month. A ration of forage was fixed at 9 lb. barley, 3 bundles of lucerne, and 4·5 lb. *saman*, or, in default of lucerne, 12·6 lb. of *saman*. Sayad-Ali-Khán undertook to supply the troops at the following rates:—*chureks* 4 *kopecks* each, meat 2 *kráns* a *batmán* (10 *kopecks* per ·9 lb.), salt, beetroot, and garlic at 3½ *kopecks* per ·9 lb. of each, sugar 40 *kopecks* per ·9 lb., tea at 2 *roubles* per ·9 lb., barley at 46 *kopecks* per *pud* (36·1 lb.), lucerne at 1 *kopeck* per bundle, and *saman* at 10 *kopecks* per *pud*.‡

To reconnoitre the country to the south-east of Lutfábád and as far as Kaakhka, the Commander of the Expedition sent the surveyor Safonoff with an escort of a *sofnia* of Orenburg Cossacks. Reserving for himself the command of the advanced force at Lutfábád, General Skobelev made arrangements for the establishment of a new line of communication from Gok-Tapa to Gávárs, at the head of which was placed Colonel Artsishevski, who was put immediately under the Staff of the Field Force, and not under that of the lines of communication§. On the new line, posts of Turkumán *Jigits* were established as follows:—1st class, *i.e.*, those with not less than 20 armed men on good horses at Annau and Gávárs; 2nd class, with from 5 to 10 horsemen at Chuli and Buzmein, with a reserve of 50 horsemen at Askhábád. If this had not been done, our troops would have had to be kept at Gávárs.

The arrival of our troops in the Atak produced a great sensation both among its population and at Marv. On the 19th February (3rd March), the Commander of the Expedition received a letter from Said-Muhammad-Shaikh (Kázi) and Sayad-Nazar-Yuzbáshi, representing the Alilis of Kaakhka, in which they made their submission and requested to be received as Russian subjects and defended from the raiders of Muhammad-Ali-Khán, and on the 6th (18th) March these men appeared in person at Lutfábád. With them also arrived the Akhál-Tekkes Pásha-Sirdár,||

* Instructions to Volkoff, No. 590.—*Author*.

† A cake of wheat flour about a pound in weight.—*Author*.

‡ Report from Prince Eristoff, No. 75, dated 21st March (2nd April) 1881.—*Author*.

§ General Orders. Trans-Caspian Field Force.—*Author*.

Alik-Bai of Marv, and Ak-Murád-Bahádur, Anák-Bátir, and Durdi-Murád from the Tajand.*

The Alilis stated that they numbered in all 500 *kibitkas*, and that they had left Khiva in 1874, in consequence of disturbances arising there. They desired to live in peace and quietness and not to plunder, but asked for our protection. General Skobelev received them kindly, rewarded them, and proposed to them to furnish *Jigits* for service on the line between Lutfábád and Gávárs. To this the Alilis willingly consented; and soon we had a force at the posts at Artik and Bába-Durmaz composed of inhabitants of Kaakhka. A letter received by the Alili representatives from Marv, which they laid before General Skobelev, contained a request from the people that they might be informed of the wishes of the Russian Government, so that they might know what to do. "Now you are treating with the Russians. When you hear whether they are mercifully inclined towards us or enraged against us, write to us very quickly," they said. "We consider you our representatives and ambassadors. Come to us at once along with Pásha-Sirdár; all your proposals will be received. In future we shall correspond with you only and with no others. Plead our cause with the Russians; do not fear the Tekkes, and, bad or good, communicate with us. The Tekkes are disposed to believe you and no others; so tell us the truth. Everything else will be explained to you by Pásha-Sirdár, who is to be believed."†

This letter, with its endless repetitions of one and the same thing, permitted of an idea being formed of the dismay and terror which had seized upon part of the population of Marv after the disaster on the 12th (24th) January. The General, after reading the letter and listening to the Alilis, answered as follows: "I do not write to those who do not write to me. If a servant of God‡ were not the intercessor between them and me, I should not believe them and should not answer them; but as he is a servant of God, I believe them. They ask if the White Tsár is angry with them. When the White Tsár is angry, his anger is heard like the roaring of a lion. The guns are thundering no more, and therefore the White Tsár is not angry. I do not desire it either for their sake or for that of their wives and children, for, if so, their blood would flow like a river, and neither English adventurers nor any others would save them, as they equally failed to save the Akhál Tekkes. You may believe me. If God were not favourable to me, I should not be standing here with my guns, and if God be favourable to the arms of the White Tsár, who can fight against the Divine Will? If they are sincere, let them send men to me whom I may receive and treat with honour as guests. But I shall only believe them when they give up the Russian prisoners and the adventurers who are troubling them. I am a straightforward man. It will not be good for them if the Tsár orders me to move against them. I shall not speak with them until they return Guzelkhánoff and Kidyáeff. Bring the Russian prisoners with you, and I shall speak with your notables. If they do not agree to my terms, I shall let them return home, and then they themselves know what will happen. If they begin to raid into Russian territory, and if a drop of Russian blood is shed, they will repent their folly, not with the tears of others but with their own tears. They say, quickly! quickly! If they wish things done quickly, let them themselves act quickly. There is no need for me to hurry. If the Tsár orders, I shall search them out. That is my last word."

* The last three came by invitation from Carl Defour.—*Author.*

† To the letter were attached the seals of Mukhtár-Bahádur, Ováz, Omár-Niáz, Allah-Kuli, Khwája-Nafas, Yágmur-Bai, and Tekke-Khán.—*Author.*

‡ Sayad-Muhammad-Khán.—*Author.*

In drawing up his plan, Lieutenant-Colonel Rutkovski had taken advantage of the experience of the Akhál-Tekke Expedition, from which the following conclusions had been drawn. By day even heavy masses of Tekkes do not dare to close with the smallest Russian force. Only when they are in enormously superior numbers will they attack, and in doing so they principally adhere to firing and only close to hand-to-hand fighting when their enemy for some reason or other cannot take advantage of his firearms or has suffered heavy loss from their fire. Such were the attacks of the Tekkes on the 21st June (3rd July), 18th (30th) August, and 25th November (7th December) 1880. The only case in which they have made an attack on a fortified post by day was at Kazánjik on the 14th (26th) September. For an attack on such a post the enemy usually gathered on a dark night, and even then did not always come to close quarters, but confined himself to firing. Such an one was the attack on Khwája-Kala on the 31st July (12th August) 1880.

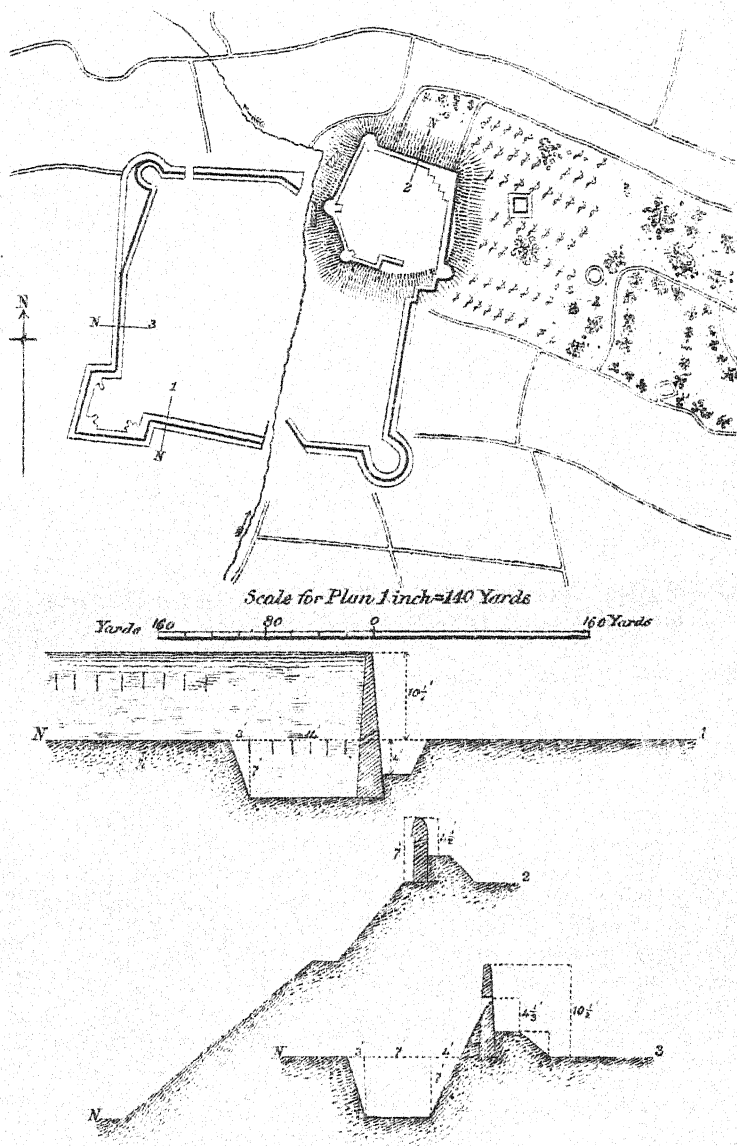
Quite otherwise were their tactics at the siege of Gok-Tapa, where infantry took part in the fight. For the attack on our entrenchments, the enemy chose by preference dark nights or the interval between the setting of the sun and the rising of the moon. He usually crept up to a distance of 100 paces, and then made a rush without firing with sword or lance in hand. Sometimes the troops succeeded in firing a volley, but their bullets generally passed over the heads of the enemy and then they had to enter into an unequal fight with cold steel which the Tekkes knew well how to handle. The troops occupying trenches formed themselves in a most unfavourable situation at the decisive moment when the enemy appeared on the crest of the parapet.

The above experience had caused the principle to be adopted in the construction of the fort of giving it such a profile as to prevent the enemy from coming hand-to-hand with the troops. A very small number of Russian soldiers could then hold out against any force of Tekkes. The best profile for the work was a mud wall with loopholes or with a banquette arranged behind it and of sufficient height to prevent escalade, or an earthen parapet of field profile with a broad and wide ditch, the scarp of which was made perpendicular. As for artificial obstacles the want of wood in Trans-Caspia prevented any but a few military pits being used.

On these principles the project for the fortified post at Askhábád was drawn up. Placed at the western edge of the village, it consisted of a main rampart (with flank defence for its ditch), surrounding a mound which commanded all the environs and a reduct on the mound itself. The garrison was fixed at a battalion of infantry, a *solnia*, and 10 guns. Inside the citadel were buildings for the artillery store, and inside the main rampart those for the hospital and supply magazine. Baths and bakeries were placed outside the rampart but within rifle range of it.

At the same time that Taghma-Sirdár proposed to form a corps of 2,000 horsemen for the defence of Marv, a letter was received there from Persia in which it was proposed that the people of Marv should become Persian subjects, 400 families migrating to Persia as hostages. "The people of Marv, for the sake of the Mussulmán religion, should become subjects of the Sháh. If they become subjects of the Russian Tsár, the Mussulmán religion will fall to the ground in Turkumánia. In consequence of the murder of the Tsár there is trouble in Russia and the old Russians fight with the new. The Caucasus has risen and soon the Russians will have to evacuate Akhál-Tekke and quit Trans-

PROJECTED FORTIFIED POST AT ASKHABAD.



I. B., March 1885.
 Exd. J. A. A.

Caspia. As if to confirm this, news was received that the Russians were evacuating Lutfábád, and in the assembly it was decided to let neither Guzelkhánoff nor Kidyáeff go free, to hasten the completion of the fortress, and to mount on it the guns which hitherto had been distributed among the *auls* of each of the four tribes into which the Tekkes are divided.

O'Donovan pointed out to the people that if they consented to become the servants of England, the latter would take no money from them and would not let the Russians come near them.* He continued to assure them that English troops were arriving at Herát; but after O'Donovan had twice mentioned the date at which the promised subsidy was to arrive and his promise had neither time been fulfilled, the Tekkes believed him no more and even paid no attention to his proposal to convert their cannon into rifled guns. The construction of the fortress went on quickly.† On it latterly 4,000 men were employed. There were 30 guns and 2 mortars, all without carriages. All these were Persian guns which had been taken when the whole Persian army was captured in 1861, and had been divided among the four Tekke tribes. They were the pride of the people of Marv and as dear to them as their freedom.

Abbás-Khán, as we were informed from Mashad, continued to keep up constant relations with Marv and tried to spread a report at Mashad that England was negotiating with Russia with a view to preventing the latter from moving forward in the direction of the Murgháb. From this circumstance the conclusion was natural that the English embassy had informed Abbás-Khán of our relations with England and that the British Agent had been ordered to pursue the realization of those great projects which could have no other aim than to throw difficulties in our way on our advance to Marv.‡

Nevertheless, the people of Marv gave us no trouble and concentrated their energies on defensive measures. Guzelkhánoff was freed from captivity. The party desiring peace was strong, whilst the war party, not being able to decide upon open hostilities against us, awaited events. General Skobelev received letters from Marv from Khwāja-Kuli-Khán, the brother of Kaushid-Khán, from Khálik-Bai, and from Sari-Bek. They expressed their readiness to serve the Russian Emperor if only he would not demand the surrender of their arms, and would not touch their wives and children. Muhammad-Yusuf-Khán reported at Askhábád that his brother Mahtum-Kuli-Khán was ashamed to return to Akhál, where he had been deprived of his honour and glory, but that he, Muhammad-Yusuf-Khán, and their mother, Gul-Jamál-Khán, had, however, pacified Mahtum by saying that there was no shame in it at all. If the Akhál-Turkumáns had been conquered by Kurds or Persians or Yamút Turkumáns, there would be shame in it but there was none in being conquered by the great White Tsár. Under the influence of these

* Letter from Muhammad-Yusuf-Khán to the Khán of Khiva in the Diary of the Asiatic section of the General Staff, 1880, No. 35, Part V, p. 422.—*Author*.

† The fortress has the form of an equilateral triangle with rounded corners and is separated from the Murgháb by the market square. The length of rampart is $7\frac{1}{4}$ *vershs* ($4\frac{3}{4}$ miles.) This earthen rampart, with steep slopes, is about 77 feet thick at the base, and is encircled by a parapet to a height of about 49 feet. There is no ditch, but both on the inside and outside of the wall are broad, shallow holes, from which the earth for the rampart has been taken. There are eight gates. Inside are three parallel canals—(An article entitled *The Russians at Marv* by Alikhánoff, inserted in the *Moscow Gazette*, 1882, No. 197.—*Author*).

‡ Report from Zinóvieff to the Minister of Foreign Affairs, dated 1st (13th) and (17th) 29th March 1881, Nos. 20 and 211.—*Author*.

representations, perhaps, Mahtum-Kuli-Khán resolved to write a letter in which he promised to come into Askhábád with the Tekkes who had fled to Marv, and said that even if they would not accompany him* he would come in any case.†

Kájar-Khán wrote to Askhábád that he desired to remain at peace with Russia, and therefore would keep the Englishman under a guard. "The people of Marv, however, can only be kept quiet by money. I am seeking to form a party and therefore require money. Send money," was the conclusion of his letter. Generally, the negotiations with Marv required great care and took much time, and General Skobelev thought it necessary to try to pacify Marv not only from Askhábád, but also from the Turkistán side, taking advantage of the influence over Marv, always possessed by the Amir of Bukhára and the Khán of Khiva.‡

The Minister of Foreign Affairs therefore proposed to the Governor-General of Turkistán to so conduct matters as to support the peace party among the people of Marv if possible.§ Together with this order, Kolpakovski received from the Commander of the Amu-Daria District a copy of a letter from the Khán of Khiva to the people of the Akhál-Tekke *oasis*, in which he advised those Turkumáns who were hiding in the desert to return to their homes and submit to the Russians. Having expressed his thanks to Sayad-Muhammad-Rahim-Khán for this, Kolpakovski wrote to him: "Some of the Marv Tekkes, as is known to your Highness, have long been accustomed to live upon the labour of others whom they have pillaged, and among them there have always been parties hostile to one another; perhaps even now there are among them men who follow their own personal ends and try to take advantage of times of disorder to force the right-minded inhabitants to hostile acts against us. Finally, the people may yield themselves to the betrayal of their well-wishers, both external and internal, and thus call forth our displeasure. Of course, they cannot do us any harm, but our custom is to shed no blood where we can act by sensible words and good councils. Our object has been the subjugation of our neighbours, the Turkumáns. After our victory it will depend upon their conduct whether we regard them as a peaceful people or carry the horrors of war into their land in defence of peace and quietness. Knowing that your Highness enjoys the full confidence and respect of the Turkumán people, I request you to counsel the Marv Tekke Elders, who have listened to the voice of reason and are inclined towards peace, to close their ears to the foolish speeches of people who love war and not to let escape from their hands those palm branches which our Government is always ready to stretch out to them. Our great Emperor harms no one and never interferes with those who by their actions give him no cause for interference."||

On the 27th March (5th April) Taghma-Sirdár came in to Askhábád with offers of submission and handed over his sword to General Skobelev,¶ by whom

* "The Tekke people are wild, they are like wild asses, or wild horses," wrote Mahtum-Kuli-Khán to Defour.—*Author*.

† Letter from Mahtum-Kuli-Khán and Muhammad-Yusuf-Khán received at Askhábád on the 29th March (10th April) 1881.—*Author*.

‡ Telegram from General Skobelev to Obrucheff, No. 52, dated 5th (17th) April 1881.—*Author*.

§ Telegram from Count Heiden to Kolpakovski, No. 441.—*Author*.

|| Diary of the Asiatic section of the General Staff, 1880, No. 35, Part V, pages 420 and 421.—*Author*.

¶ Taghma-Sirdár also brought General Skobelev's horse "Sheinovo," captured in the Band-Hassan pass on the 19th (31st) August 1880, and some Berdán rifles. These were returned to him by General Skobelev.—*Author*.

it was at once returned to him and pardon promised. Taghma-Sirdár gave his oath to faithfully serve His Majesty the Russian Emperor.

It was only with the submission of Taghma-Sirdár that the Akhál-Tekke Expedition really came to an end.* Notwithstanding his defeat at Gok Tapa, Taghma-Sirdár had not lost the respect of the people, who received him with honour. Some of the peace party blamed Taghma-Sirdár for their misfortunes, and did not believe in his return to allegiance. When he arrived, therefore, they felt thunderstruck, and the ovation, open or secret, given to Taghma-Sirdár by the people shewed how right the former leader of the Tekkes was when he wrote to Kázi-Mulla-Ali of Nukhur. "Let it be known that except myself no Tekke can harm the Russians." When, therefore, Taghma-Sirdár told General Skobelev that he desired to reside at St. Petersburg or Moscow, the General at once seized the opportunity of ridding the country of a man who could not but be considered as extremely dangerous. On the 9th (21st) April Imperial permission was received for Taghma-Sirdár to reside at St. Petersburg together with some other influential Tekkes.†

In the meantime (as will be mentioned further on) we had evacuated Lutfábád. When the news of this reached Marv, the people were greatly rejoiced as they said that the danger for them had passed and they began to reproach all those who had advocated peace with the Russians. More than all they blamed Kájar-Khán who was deposed and replaced by Bába-Khán, son of Kaushid-Khán.‡ A few small raids were made on our territory, and in April there were 5 cases of murder and driving away of camels belonging to Akhál-Turkumáns and Persians. A Russian soldier was also wounded. These outrages were traced to the people of Marv; and to prevent a repetition of them, and in order to lay some of the responsibility on the inhabitants themselves, a cordon service was established of 160 trustworthy selected Elders of Akhál and *Jigits*, and this was distributed along the Tajand frontier at wells, by which people coming from Marv would have to pass.§

The new Khán of Marv, under the influence of the events which had followed our withdrawal from Lutfábád, wrote the following letter in May, addressed to the White Tsár: "It is not unknown to you that in their war with the people of Marv the troops of Sháh Nasr-ud-Din were defeated and lost a large number of guns and their baggage. Again the same people were victorious over the forces of Muhammad-Amin-Khán, Khán of Khiva, who himself was killed in the battle. Whoever fights with us is conquered. If you, the ruler of a mighty empire, are victorious, it will be well; if you are defeated, it will be a great disgrace to your Empire. At any rate, come and fight the people of Marv; it will be good for both sides. There are some men who secretly engage in robbery. For their sakes you must not be angry with all Turkumáns. We are ourselves ready to punish such if we catch them. All information, whether of a friendly or hostile nature, will be communicated by us to you, and we shall expect corresponding communications to be made by you."||

* Telegram from General Skobelev to Zinóvieff, No. 3244, dated 28th March (9th April), 1881.—*Author*.

† Telegram from General Skobelev to the Commander-in-Chief of the Army of the Caucasus, No. 21, dated 31st March (12th) April 1881. Besides Taghma-Sirdár, Kul-Bátir and Ahwáz-Kuli-Sirdár were also sent to St. Petersburg.—*Author*.

‡ He was Khán of Marv in 1878.—*Author*.

§ Telegram from Prince Melikoff, No. 1394, dated 6th (18th) May 1881. Their pay was—*jigits* 30 roubles, and 4 sirdár's at 50 roubles a month each.—Instructions from Röhrberg to Spolatskog, No. 752, dated 1st (13th) May 1881.—*Author*.

|| Letter dated "Month of Radjab, 1298.—*Author*.

After the fall of Gok-Tapa and the complete pacification of the *oasis* as far as Gávárs, some questions of Imperial importance still remained to be settled, *viz.*,— (1) The delimitation of the frontier between the conquered district and Persia, and the exact determination of the frontier between the territories of the Sháh and the country occupied by us on the east of the Caspian Sea. (2) The relations between the newly occupied country and of its administration with the neighbouring Persian provinces. (3) The actual extent of our territory in the Akhál-Tekke *oasis* and our relations with Marv.*

Both General Skobelev and Zinóvieff, our Ambassador at Teherán, were of opinion that to abandon the *oasis* and thus give the Expedition of 1880-81 the character of a raid was inadmissible. Immediately after the capture of Gok-Tapa, the Minister of Foreign Affairs had inquired from Zinóvieff to what extent a permanent occupation of the *oasis* would be necessary, and whether there was no possibility of avoiding an occupation which would entail considerable expenditure, and of confining ourselves to keeping the Tekkes quiet by binding them down not to migrate into a certain quarter and thus trying to reduce them to a state of peace. In answer to this, Zinóvieff presented the following memorandum :—

“ Our expeditions into Akhál-Tekke were undertaken with the firm intention of putting an end to the unbridled turbulence of the Tekke population and establishing ourselves firmly amongst them. This intention has been received with general approval both in Europe and in Asia, and from this point of view a change of policy would be extremely disadvantageous.

“ Again, there can be no talk of any peaceful agreement with the Tekkes unless it is backed up by our military force in the *oasis*, which should always serve to remind the Turkumáns that we are perfectly able to punish any attempt at turbulence severely.

“ The Tekkes do not constitute a state. They are divided into tribes which, in their turn, are split up into clans and families. There is no power to unite them, and each Turkumán enjoys full personal independence. If at times unity of purpose has shewn itself amongst them, it has usually been generated under the influence of exceptional circumstances or when a common danger has threatened and forced them to direct all their energies to the defence of their freedom. Unity of action has disappeared when such danger has passed away. It is easily seen how little such a state of matters offers a guarantee for the durability of any peaceful agreement.

“ During the expeditions of 1880-81, the Tekkes have had full opportunities of judging of the difficulties connected with our expeditions into the desert. In the event of our withdrawal from the *oasis*, they will remember that we will not lightly decide upon a fresh undertaking, and therefore the recollection of the severe punishment suffered by them at Gok-Tapa will disappear exactly in proportion as they see that isolated acts of lawlessness contrary to their agreement with us go unpunished.

“ Even if the Turkumáns did not understand that, there is no doubt that the agents of other nations who succeeded in getting into secret relations with them would certainly direct all their efforts to destroying our influence over them ; they will not be slow to explain to them the significance of our retirement and all the consequences arising from it.

“ We must not forget that besides Akhál there is another independent centre of the Tekke population—the Marv *oasis*. This centre is, however,

* “ The Marv question is inseparable from that of the Akhál-Tekke,” wrote General Skobelev from Bami to St. Petersburg, dated 1st (13th) June 1881.—*Author*.

unattainable for us. There can be no doubt as to the hostility to us of the Marv Tekkes who sent several thousand warriors to the assistance of Akhál, and this feeling will not be long in communicating itself to the population of Akhál if we deprive ourselves of the possibility of keeping the latter in strict subjugation.

"All these considerations force us to the conclusion that, with the withdrawal of our forces from Akhál, the state of things existing previous to our expedition (when we in our ports on the east coast of the Caspian were so long forced to remain passive spectators of lawlessness and brigandage) will be restored. From the time when we first occupied Krásnovodsk, this state of matters forced us to have recourse to constant reconnaissances and small expeditions, which not only brought us no advantage but were positively hurtful to us. As the experience of the last two years has shown, all these reconnaissances and expeditions only encouraged the Turkumáns to unite, taught them the proper way to oppose us, and actually increased their military skill.

"If for any reason we decided to take an irrevocable step such as the evacuation of the Akhál-Tekke *oasis*, in such a case strict consistency and logic would demand that we should evacuate all our posts on the east coast of the Caspian, among them Krásnovodsk, which can only serve as a military base for operations in the steppe, as it would be deprived of all its importance if we renounced extending our empire to the east of the Caspian. The hope that by the occupation of Krásnovodsk we should open for ourselves new trade routes into Central Asia has not been justified, as its occupation did not enable us to keep the population of the steppe in check.

"It must not be forgotten that one of the causes which urged us to operations to the east of the Caspian Sea was the necessity of making an impression upon England and checking her attempts against us in Central Asia. This was the consideration which caused our expedition of 1878 to Khwája-Kala. This latter convinced us of the necessity of subduing the Tekkes.

"It is impossible to believe that in the future the same necessity will not again arise, and the experience of the present expedition and the difficulties we have had to overcome have sufficiently shewn that no diversion against England in Central Asia can have any effect while the Tekke people remains independent upon our route.

"The English understand that very well, and to this consideration must be ascribed the efforts of their agents to prevent the success of our operations against the Akhál-Tekke *oasis*.

"To voluntarily give up the so dearly-bought successes of our present expedition, would be all the more foolish as there is at present a most important Central Asian question as yet unsettled—the future of Afghanistan.

"The existing order of things in the country was destroyed by the English, the native dynasty, which for a few dozen years had ruled the country, was overthrown, and all the efforts of the English to establish a strong power at Kábul have up to this date had no real result. Abdul-Rahman-Khán, who was placed upon the throne by the English, is far from being popular even in the vicinity of Kábul, whilst round Kandahar England has hardly succeeded in obtaining the best results, even allowing that her expressed intention of evacuating that district is sincere. At the same time, Sirdár Ayub-Khán rules

at Herát; his position is very shaky and up to this time he has only kept it because the Afgháns see in him a defender of the national independence and a determined enemy of the English.

"There is not the smallest reason to believe that the affairs of Afghánistán will shortly emerge from their entangled condition. We must suppose, on the contrary, that the germs of anarchy and rebellion will long be fostered in that country, and that this state of affairs will call for continual attempts on the part of England to interfere in the interior affairs of Afghánistán. Such attempts upon Central Asian countries frequently end in the latter beingswallowed up. Even though Gladstone's Ministry is opposed to such a policy, the English Conservatives in the event of their return to power will not find it impossible to discover sufficient reasons for the pacification of Afghánistán, so as to realize their political programme which is to push the dominion and power of England to the greatest extent in Central Asia, and diminish the importance of Russia.

"Our advanced post at the north eastern extremity of Khurássán, united as it is with our base on the Caspian by good lines of communication, will doubtless compel the English to be more circumspect in their ambitious schemes, as all the roads to the east and south-east are open to us.

"It can hardly be doubted that the defeat of the Tekkes will be remembered by all the neighbouring peoples for more than a century and will be of great importance in Central Asia, and therefore an evacuation of the *oasis* by us, which would be ascribed to weakness on our part and probably also to pressure from England, could not but entail great loss of influence.

"In any case, this would be the result as regards our relations with Persia.

"For the last two years we have continually assured the Sháh's Government of our intention of subjugating the Tekkes to our power, and we have even entered into preliminary negotiations as regards the delimitation of a frontier between our possessions and those of Persia. Our first assurances caused the Persian Government a feeling of danger; but in the course of time it, seeing our persistency, not only agreed to our undertakings, but even became convinced that these undertakings were in complete harmony with Persian interests, and tended to secure the frontier, and, what was much more important in the eyes of the Sháh, to consolidate his power in Khurássán itself.

"Finally, in deciding upon this important question, we must not lose sight of considerations of a purely moral nature.

"Our expedition to the Akhál *oasis* was undertaken with a loudly expressed intention of putting an end to the brigandage of the Tekkes, securing freedom in the heart of Central Asia, and opening new trade routes. The obstinate resistance made by the Tekkes caused a frightful loss of life, and this circumstance lays a moral obligation upon us to continue with the realization of our proposals, and this can only be effected by our taking upon ourselves the reorganization of the newly occupied territory and preserving it for ever from a return to the former order of things. We must not let the idea take root that our troops came into the *oasis* only to murder the Turkumáns."

In a word, Zinóvieff could not entertain the idea of making a radical change in our first proposals as regards the Akhál-Tekke *oasis*, but, on the contrary, was convinced of the necessity of going on as we had begun.

In the meantime General Skobelev had personally inspected the strip of country in which it was proposed to establish our boundary and had presented his views on the subject to Government. These views, together with those of our Ambassador at Teherán, were considered by the Ministers of Foreign Affairs and of War, and served as a basis for an agreement with the Persian Government for the delimitation of a frontier between Russia and Persia in Trans-Caspia.

On the conclusion of the Akhál-Tekke Expedition and the conquest of the *oasis*, Russia had become possessed of a large country covering an area of 12,400 square miles, with a population of 50,000 souls. The Commander-in-Chief of the Army of the Caucasus therefore represented the necessity of making regular arrangements for the administration of the newly occupied country. He recommended that the name of Trans-Caspian Military District should be changed to that of Trans-Caspian Province, and that the rules for establishing a temporary administration over it and over the troops in it should be laid before His Majesty, so that by the end of 1881 the final establishments and regulations might be ready for confirmation.

These rules, dated 6th (18th) May 1881, were confirmed by His Majesty, and an *ukáz* was issued to the Governing Senate which ran as follows: "With a view to ensure peace and quietness on the Trans-Caspian steppe, I think proper to unite to the Empire the territory of the Tekke-Turkumáns occupied by our troops, and order that out of it and the territory of the Trans-Caspian Military District be formed the Trans-Caspian Province which is to be included in the Caucasus Military District. Accordingly, the supreme administration of the new province will be in the hands of the Commander-in-Chief of the Army of the Caucasus, and the local administration in those of a Governor of the province who will have command over the troops stationed in it. The temporary administration of the Trans-Caspian province will be entrusted to the Commander-in-Chief of the Army of the Caucasus, who will be guided by present circumstances and by local conditions until the establishment of a regular administration for it."

General Röhrberg was named Governor of the Trans-Caspian Province and Commander of the troops in it, and Colonel Baron Aminoff Chief of the Circle Staff and Assistant to the Governor. The yearly expenditure for the administration and garrison of the province was fixed, till further orders, at a sum not exceeding 140,000 *roubles*.*

The temporary establishment of the administration of the Trans-Caspian Province and of the troops stationed in it was confirmed by the Commander-in-Chief on the 11th (23rd) June 1881,† and came into effect from the 1st (13th) July of the same year, in place of the actually authorized establishments of the corresponding departments of the military force and of the Trans-Caspian Military District which were broken up on the 1st (13th) July. The temporary establishment was to hold good till 1st (13th) January 1882, as by this time the normal establishment of all departments would be worked out. Till then it was proposed to take as a guide in the administration of the circle the temporary rules published in Military Circular No. 95 of 1874. The powers of the Governor of a Circle and Commander of the troops in it and

* Diary of the Asiatic Section of the General Staff, 1881, No. 13, pages 117-120.—*Author*.

† In Appendix No. 85 see table showing the Administrative *Personnel* of the Trans-Caspian Province. In place of field treasuries, temporary treasuries were established at Krásnoyevsk and at Askhábád.—Diary of the Asiatic Section of the Chief of the Staff, No. 13 of 1881, page 181.—*Author*.

of the Chief of the Circle Staff were also defined in section 36 and 46 of the regulations attached to Military Circular No. 85 of 1858.* The temporary yearly expenditure for the administration was fixed at 162,949 *roubles*.†

On the 9th (21st) December 1881, there was signed at Teherán the following convention between Russia and Persia as to the delimitation of the frontier to the east of the Caspian :—

"In the name of Almighty God, His Imperial Majesty the Emperor and Autocrat of all the Russians, and His Majesty the Sháh of Persia, considering it indispensable to define exactly the border between their possessions to the east of the Caspian Sea and to guarantee their peace and quietness, have agreed to conclude for this purpose this convention and have named as their plenipotentiaries :

On the part of His Majesty the Emperor of Russia, Iván Zinóvieff, His Ambassador Extraordinary and Minister Plenipotentiary at the Court of the Sháh, and on the part of His Majesty the Sháh of Persia Mirza-Sayad-Khán-Motaman-ul-Mulk, His Minister of Foreign Affairs, who, after exchange of full powers, which have been found correct and in proper form, have agreed to the following articles :—

ARTICLE I.

The frontier between the possessions of the Russian Empire and Persia to the east of the Caspian Sea is indicated by the following lines.

Starting from the Bay of Hassan-Kuli, the frontier follows the course of the Atrak as far as Chát. Thence it runs to the north-east along the crest of the ridges of the Songu-Dágh and Ságir, and then, turning to the north to the river Chándir, it reaches this latter at Chakán-Kala. From Chakán-Kala it runs to the north to the summit of the hills dividing the valley of the Chándir from that of the Sumbár, whence it runs along the summits of these mountains in an easterly direction and descends to the bed of the Sumbár where the Akh-Ogayán stream falls into it. To the east, the frontier then follows the bed of the Sumbár to the ruins of the mosque of Daine, from which point the road to Durun up to the summit of the Kopet-Dágh forms the line, which then runs along the ridge of these hills to the south-east, stops short of the Garmáb defile, turns to the south passing along the heights dividing the Sumbár valley from the highlands of the Garmáb, and then, running over the summits of the hills of Misinoff and Chubbest, reaches the road from Garmáb to Rabát at a distance of one *verst* ($\frac{2}{3}$ mile) to the north of the latter point. From this point the border line passes along the line of heights to the summit of the hill of Daláncha, whence, north of the village of Khairábád, it runs to the north-east to Gok-Kaital. From this point, it runs to the gorge of the Firuza river and crosses this gorge to the north of the village of Firuza. Hence the border-line runs to the north-east and rises to the summit of the ridge which bounds on the south the valley in which lies the road from Askhabád to Firuza, along the crest of which it runs to its eastern extremity. From this the frontier crosses to the edge of the northern summit of the Aselma ridge and is continued along the summits of this ridge to the south-east. Passing round the north of the village of Kálta-Chinár, it runs to the point of junction of the ridges of Zar-i-Koh and Kizil-Dágh, from which it follows the ridge of the former hills to the point where

* Reports from the Staff of the Caucasus Military Circle to the General Staff, Nos. 2202, and 2468, dated 20th June (2nd July) and 8th (20th) July 1881.—*Author*.

† Letter from Pávloff to the Chief of the General Staff, No. 2073, dated 10th (22nd) June 1881.—*Author*.

they enter the valley of the stream of Bába-Durmaz. Here it takes a northerly direction and runs into the *oasis* at the road between Gávárs and Lutfábád, avoiding Kala Bába-Durmaz which remains to the east of the frontier line.

ARTICLE II.

In Article I of this convention have been mentioned the main points through which the frontier between Russia and Persia is to run; but in order to determine it precisely on the spot and set up boundary-marks, special commissioners will be named by the high contracting powers. The time and place of meeting of the commissioners will be determined by agreement between the contracting powers.

ARTICLE III.

As Forts Garmáb and Kulkuláb, standing in the defile through which runs the river which waters the lands of the Trans-Caspian Province, are to the north of the line which, as laid down in Article I, is to form the frontier between the two high contracting powers, the Government of His Majesty the Sháh agrees to evacuate those forts within a year from the date of the exchange of ratifications of this convention, and will have the right of within that time removing the inhabitants of Garmáb and Kulkuláb to within the confines of Persia. On its part, the Government of His Majesty the Emperor of all the Russias agrees to construct no forts in those localities and to settle no Tekkes there.

ARTICLE IV.

As the sources of the river Furuza and of several other streams and rivulets which water the lands of the Trans-Caspian Province close to the Persian frontier lie within Persian territory, the Government of His Majesty the Sháh promises under no circumstances to allow new settlements along the course of these streams from their sources to where they leave Persian territory, or to enlarge the extent of land watered by them, or under any pretext whatever to take away from them a greater quantity of water than is required for the irrigation of the fields now existing within Persian territory. For the immediate observation of the punctual execution of this article, the Government of His Majesty the Sháh promises to appoint a sufficient number of trustworthy agents, and any infractions of their orders will be severely punished.

ARTICLE V.

With a view to a revival of trade between the people of the Trans-Caspian Province and Khurássán, both high contracting powers engage to take measures as soon as possible for the construction, on conditions favourable to both parties, of good roads for wheeled traffic.

ARTICLE VI.

The Government of His Majesty the Sháh of Persia promises to strictly prevent the export of arms and military stores along the whole line of the frontier of Astrábád and Khurássán, and will also take measures to prevent arms falling into the hands of Turkumáns living in Persian territory. The Persian frontier authorities will co-operate actively with the Agents of the Imperial Russian Administration in preventing arms being taken across the frontier of Persia. On its side the Government of His Majesty the Emperor

of all the Russias promises to prevent arms and military stores being conveyed from Russian territory to Turkumáns living on Persian soil.

ARTICLE VII.

To watch over the carrying out of this convention and to observe the actions of the Turkumán population bordering on Persia, the Government of His Majesty the Emperor of all the Russias will have the right of appointing agents in the frontier places of Persia. In all questions affecting the maintenance of order in the countries on the frontier of the high contracting powers, the said agents will be mediators in relations between the Russian and Persian authorities.

ARTICLE VIII.

All the obligations and conditions included in the treaties and conventions hitherto concluded between the high contracting powers will in future also remain in force.

ARTICLE IX.

This convention, drawn up in two identical copies, signed by the Plenipotentiaries of both sides, and sealed with their seals, will have to be confirmed and ratified by His Majesty the Emperor and Autocrat of all the Russias and His Majesty the Sháh of Persia, and ratifications will be exchanged between the Plenipotentiaries of both sides within four months or sooner if possible.

Done at Teherán, dated 9th (21st) December 1881, or 29th Muharram 1299, according to the Mussulmán reckoning.

In the end of February and in March the departure of troops for the west coast of the Caspian and the corresponding changes in the distribution of the troops in the Trans-Caspian Province went on. From Gok-Tapa and Askhábad the 3rd Battalion, Apsheron, 4th Battalion, Daghistán, 1st and 5th Battalions, Sámur, and 3rd Battalion, Shirván Regiments, the 3rd Battery, 19th Brigade, the Naval Battery and the 1st, 3rd and 5th *sotnias* of Poltáva Cossacks were brought down to the ports of embarkation, Chikishliár and Krásnovodsk. The occupation of Lutfábád by troops of the advanced force somewhat delayed the return to the rear of the 1st Battalion, Shirván Regiment, 4th Battery, 20th Brigade, 2nd *Sotnia* Poltáva Cossacks, Division of Dragoons, and 3rd *sotnias* of Orenburg Cossacks. The concentration, however, of the Stávropol Regiment at Askhábad by the 15th (27th) March, permitted of the troops of the advanced force, who had been detained, being moved to Krásnovodsk.* On the 15th (27th) March, the 2nd and 4th companies, Shirván Regiment, on the 22nd March (3rd April) the 4th Battery, 20th Brigade and 1st and 3rd companies, Shirván Regiment, and on the 23rd March (4th April) the 2nd *Sotnia* of Poltáva Cossacks left Askhábad for Krásnovodsk.

The advanced force at Lutfábád on the 18th (30th) March consisted of the division of dragoons, one *Sotnia* of Orenburg Cossacks and the Horse-Mountain Division under Lieutenant-Colonel Kuzmin-Karaváyeff. To support this force it was proposed to form a column at Gávárs composed of a company of the

* On the 18th (30th) March the 1st and 3rd companies, Shirván Regiment, $\frac{1}{2}$ of 4th Battery 20th Brigade, 2nd *Sotnia* Poltava and 3rd *Sotnia* 5th Orenburg Cossacks had left Lutfábád for Askhábad, under Prince Eristoff. *Instructions to Prince Eristoff, No. 714, dated 17th (29th) March.—Author.*

Stávropol Regiment, a *Sotnia* of Taman Cossacks, and a division of the 6th Battery, 21st Brigade.* The Commander of the Expedition himself left Lutfábád on the 18th (30th) March.

At the same time as the march down-country of the troops to be relieved was being carried out, changes in stations of those who were to remain behind were also made according to the plan of distribution. For the march from Askhábád to Gok-Tapa the troops were supplied with transport waggons to carry their baggage, and from Gok-Tapa to the terminus of the railway with camels hired from the Tekkes by Major Spolatbog. Beyond that the troops were taken by rail to Micháelovsk and thence to Krásnoyed'sk on barges towed by steamers. The baggage of troops sent down by the Atrak line was for the most part carried on hired *arabas*.

Camels were hired from the Tekkes at the following prices:—From Sámurskoye to Gok-Tapa to take away from the former place the supplies from the supply-depôt ordered to be evacuated, 5 *kráns*. From Sámurskoye to Askhábád, the same purpose, 10 *kráns*. From Gok-Tapa to Askhábád, 8 *kráns*; to Durun 15, and to Bámi 30 *kráns*, all for a load of 12 *puds* (433·2 lbs.), including in this the pay of the driver, one of whom was allowed for 5 camels. Camels not loaded with 12 *puds* were only paid for at half the above prices. The inhabitants willingly furnished at one time 9,000 camels, and during march all the stores detailed for transport from Sámurskoye and Gok-Tapa to Askhábád were thus carried. Intendance stores were always sent without escort and not one had was in any way damaged.

In settling accounts for the camels furnished, it was taken as a rule that on the animals being loaded and before they started all sums were to be paid in full in the presence of a Field Controller. The money thus earned was of some service to the natives, and the news of this was spread among the nomads. Offers of transport then came into any extent, not only from Akhál, but even from Marv.

In March the number of Tekkes who had returned had reached 6,100 *kibítkas* (about 16,000 souls of both sexes). All who had arrived from Marv and the Tajand had gone to Spolatbog for grain, which was issued to them from our stores. Sick and wounded inhabitants received blankets, and Spolatbog's humane treatment of the vanquished and care of them caused even those who had submitted to the Persian Government and received land from it to return to their homes.†

In the latter half of March, news was received at Askhábád that 6,000 mounted men without their families had arrived near Kara-Band on the Tajand with a view to engaging in agriculture. This appeared suspicious, for never before had more than 500 men come from Marv to Kara-Band to cut the crops, and these had always brought their families with them, so General Skobelev, to support the Lutfábád force, moved a detachment consisting of two companies of the Stávropol Regiment, a *Sotnia* of Taman Cossacks, and two mountain guns, under Major Dokukin, from Askhábád to Gávárs, giving the commander the following instructions:‡—

(1) At night the troops are to encamp in a square of as small dimensions as possible, *yulameikas*, waggons, pack-saddles, &c., being placed in front of the faces; guns and ammunition waggons on the contrary are not to be moved too far to the front beyond the faces of the square, and obstacles should be placed

* Instructions to Kuzmin-Karaváyeff, No. 716, dated 18th (30th) March.—*Author*.

† Letter from Spolatbog to the Commander of the Expedition, dated 9th (21st) March.—*Author*.

‡ In which is expressed his experience before Gok-Tapa.—*Author*.

so as to avoid a rush upon them. The *yulameikas* are to be placed with their entrances in the inside of the square. (2) Intersected ground should be chosen as far as possible, and one of the faces should adjoin upon an impassable obstacle. (3) The possibility of a sudden night attack by large hostile masses of horsemen or footmen must always be kept in view. "Therefore certainly it is not by night that the commander and officers may sleep, but on the contrary they must watch, watch, and again watch for the honour of their flag and their duty to their oath." (4) Strong detached posts should be stationed out at properly chosen points, and they should be protected by a natural or artificial parapet. Mounted posts are on no account to be employed, but during the whole night the communication between the dismounted posts may be maintained by small mounted patrols moving round the camp to meet one another. It is desirable that trumpeters should be with those patrols; should none be available, the men must challenge loudly, and in general all measures should be adopted to convince the enemy of our constant watchfulness, for in this hostile country even the most experienced commander cannot be certain that a sudden attack will not be made upon him. (5) Special attention must be paid to such signs as are afforded by the conduct of the population of the native traders, and of the *Jigits* with the force. If the population is unquiet, the traders will leave the force, the bazaar will be less well attended, and the *Jigits*, under various pretexts, will refuse to perform their duties. Then will be the time for increased watchfulness. If some of the *Jigits* disappear and some remain with the troops, so that their comings and goings get mixed up, then the danger is near. The appearance near our camp of some *duráns* (fanatics) is a bad sign. (6) The news must be spread along the road that many men and guns have been landed at Krásnovodsk, and this must also be told at Lutfábád as a *Jigit's* rumour. (7) Money must be freely spent on spies.*

The news as to the intentions of the people of Marv turned out to be false, and Artsishevski reported from Gávárs that those on the Tajand were peaceably occupied in agricultural labour, and that the Tekkes were continuing to return to Akhál-Tekke from Marv.

As a distinct notification had arrived from Tiflis that the occupation of Lutfábád was not considered useful, General Skobelev ordered the force at that place to fall back on Askhábád, and this movement was carried out by the 1st (13th) April.

As regards the Trans-Atrak Turkumáns, it may be imagined that they had suffered a good deal in 1880 by not being allowed to cross to the right bank of the river. In consideration of this and desiring to induce those nomads to settle in our territory, General Skobelev ordered a tax of one *rouble* per *kibítka* crossing into our territory to be laid upon them; it was proposed, however, to put those who settled in our territory permanently under the same rules as held good for the whole province.

We could not watch all the fords on the Atrak and, therefore, it was practically impossible to keep a correct account of the number of *kibítkas* which at various times entered the immense country. Consequently there was a danger that speculators might appear in the midst of the people giving themselves out as agents of the Russian Administration and arbitrarily collecting money; affirming their right to do so and giving fictitious permission to the nomads to cross the Atrak, and of this the nearest military authorities would never hear. The considerable reduction of our military resources along the Atrak and

* Instructions to Colonel Artsishevski, No. 2766, dated 22nd March (3rd April) 1881.—*Author*.

the diminution of the number of troops occupying the *étappen* stations compelled us to proceed at once to the organization of this matter. In such affairs the control could not be too strict or many-sided. The Temporary Commander of the Troops therefore gave the following orders:—

(1) The course of the Atrak and of its affluents from the sea to Khwāja-Kala will be divided into sections according to the number of *étappen* posts, and it must be proclaimed to the population beyond the Atrak that to cross into our territory from such and such a point, they must be provided with a permit from the commandant of such and such a post.

(2) The commandants will keep, in a special book, the receipts and accounts of the money received, stating to whom and for what period the permits were issued. In the receipts must be stated the direction in which the *aul* or family was proceeding, but dealings with single families are to be avoided as far as possible.

(3) The tax on *kibitkas* will be handed over monthly to the Line Commandant.

(4) Once a month, at least, a Staff Officer will be detailed sometimes accompanied by a Control Official, who, after verifying the accounts of a certain post, will also verify the number of *kibitkas* in the section.

(5) It will be explained that all who impose upon the people in this matter or obtain money from them unlawfully will be tried by Field Court-Martial.

If actually 20,000 *kibitkas* crossed to our bank of the Atrak, the Government would in this way obtain 120,000 to 140,000 *roubles*.*

In view of the closing of military operations and the reduction of the troops in the country by half, the Temporary Commander of the troops notified by General Order of 22nd March (3rd April) that the Staff of the lines of communication and the Station Commandants would cease their functions on the 1st (13th) April. The duties of Station Commandants were transferred to the senior officer of the troops quartered at any place with extra (command) pay of 300 *roubles* for a 1st class and 200 for a 2nd class station *per annum*. They were placed directly under the officer in charge of the lines of communication, and had the rights and duties mentioned in the regulations for lines of communication.†

In consequence of the appearance of typhus in various forms both at Gok-Tapa and on the lines of communication, the sanitary state of the troops was not altogether satisfactory. To combat the epidemic, disinfectants, &c., were sent forward, but one of the chief measures taken to diminish the amount of sickness was the evacuation of the infected corps to the west coast of the Caspian.

On the 1st (13th) March, the period for which Sansieff's 50 Ossetian *arabas* had been hired expired, and was not renewed, and on the 22nd March (3rd April) a division of the pack-horse transport was broken up and its horses handed over to the wheeled transport. By the 1st (13th) April, 190 of the waggons ordered in the Caucasus in the end of January had arrived at Krásnovodsk, and these were sent up to the terminus of the railway and there formed into convoys.

* Report from the Staff of the Trans-Caspian Field Force to the Commander of the Lines of Communication, No. 1479, dated 10th (22nd) March 1881.—*Author*.

† General Orders, Trans-Caspian Field Force, No. 124, dated 22nd March (3rd April) 1881.—*Author*.

The arrival of supplies from Persia at the depôts at Askhábád and Gok-Tapa went on continually at our extreme advanced points. We had the following supplies on the 1st (13th) April:—

	Askhábád.		Gok-Tapa.
	cwt.		cwt.
Biscuits and cakes	624·96	...	355·52
Wheat and rye-flour	5,012·8	...	1,632
Garlic	...	...	5·76
Wheat	975·36	...	...
Rice and buckwheat-groats	170·24	...	536
Barley	4,000	...	2,474·24
<i>Saman</i>	1,280	...	...
Sugar	78·72	...	...
Tea	7·68	...	8·
<i>Ghi</i>	43·52	...	37·76
Salt	17·92	...	75·1
Fruit acids	10·88	...	70·4
Peas	11·2	...	...
Pepper	1·6	...	·96
Laurel leaves	2·8	...	·96
Preserved meats	7,500 rations	...	...

Thus the Askhábád garrison, 2,100 strong, had provisions for 5 months and barley for 600 horses for 2½ months.

In the Gok-Tapa supply-depôt there were supplies for 600 men and 150 horses for 5 months, except sugar, a 5 months' supply of which was only delivered some days later. Durun and Archmán were provided with supplies and sea rations for 1½ months. In the Bámi supply-depôt there were at that time more than 7,360 cwt. of supplies, of which 2,880 were rye and wheat flour, 1,600 cwt. cakes and biscuits, and 2,880 cwt. buckwheat groats. Kizil-Arvát and Kazánjik had supplies for their garrisons for 1 month. The Akheha-Kuima supply-depôt at the head of the railway had supplies for 2 months for 3 companies and 1,200 horses. The other magazines on the Micháelovsk line were provided as follows:—

	Bála-Ishem.	Micháelovsk.	Krásnovodsk.
	Cwt.	Cwt.	Cwt.
Rye-flour	4,512	12,352	960
Buckwheat-groats	122·88	2,638	192
Rice	144	827·2	90·24
Biscuits and cakes	3,268·8	5,760	1,544
Oats	12,256	18,944	34,560
Wheat-flour	960	50·56	553·6
<i>Ghi</i>	161·6	67·52	3·84
Garlic	354·24	...	...
Pepper	7·68	5·44	·32
Laurel leaves	10·24	3·84	·64
Cabbage	1,015·68	148·8	51·2
Vegetables	96	...	...
Potatoes	158·08	1,431·68	...
Salt	35·84	461·76	21·76
Acids	50·24	160	88·32
Sugar	38·4	50·24	12·8
Tea	...	1·6	·64
Hay	4,800	...	3,520
Vinegar	...	248·4 gallons	65·5 gallons.
Spirits	...	...	226·8 „
Total	42,991·68	42,982·08 cwt.	41,594·24 cwt.

The supply-depôts on the Atrak line contained the following supplies on the 15th (27th) April:—

Articles.	Chkischliar.	Karaja-Batir.	Yagli-Olum.	Chat.	Duz-Olum.	Tarsakan.	Khwaja-Kala.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Rye-flour	4,351.08	12.40	02.4	237.12	3,265.68	614.08	1,915.08
Biscuits	49.34	105.02	17.24	21.03	18.08	413.44	198.72
Buckwheat-groats	692.50	89.60	103.48	46.08	1,113.64	149.76	430.36
Cakes	619.4	26.88	...	...	593.68	...	142.72
Oats and barley	21.344	14.4	61.12	3,417.28	194.76	.64	206.24
Hay	8,933.76	1,532.48	2,575.68	678.08	854.4	2,986.56	376.56
Cabbages	1,616	10.24	47.04	3.84	51.2	.32	42.24
Salt	844.16	9.28	6.8	3.4	262.4	37.76	101.76
Oil	626.88	4.16	11.84	14.4	17.6	8.32	4.48
Tea	94.12	1.28	1.92	3.2	5.44	2.88	6.72
Sugar	865.92	6.08	8	33.92	4.16	25.6	6.72
Pepper	1.92	.96	.64	.96	1.92	.64	1.6
Laurel leaves	18.24	1.28	.64	..	3.2	1.28	2.56
Rice	2,786.56	20.48	.96	101.12	28.16	42.44	66.88
Fruit acids	556.48	5.76	21.76	12.48	194.92	24	58.24
Wheat flour	1,707.2	18.88	87.08	82.56	741.44	28.16	38.4
Spirits	gallons. 10.8	gallons. 18.5	gallons ...	gallons. 10.8	gallons. ...	gallons. 157.72	gallons. 264.8
Vinegar	3045.6	10.8	21.6	8.1	2.7	...	213.3
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Total	45,300.16	1,872.96	3,017.28	4,688.64	7,769.92	4,403.2	3,219.52

The supplies from the Band-Hassan supply-depôt to the amount of 1,600 cwt. were being gradually transferred to Bami, and those at Karaja-Batir, Chat, and Tarsakan had been ordered to be transferred to the intermediate points, viz., Yagli-Olum, Duz-Olum, and Khwaja-Kala.

Upon the opening of navigation to Astrakhan, sleepers had been delivered for the railway, and the laying of the line had been entirely pushed on on the already levelled section from Aidin through the Akheha-Kuima pass. By the 1st (13th) April, 72 miles of railroad had been laid up to the foot of the Little Balkhans, where the "Pass" (*pereval*) station was made. At this time the Décauville line ran from the Akheh-Kuima pass towards Kazanjik, and its terminus was 25 *versts* (16½ miles) from that of the main line. The attempts to find water in the Little Balkhans had not been successful, although wells had been dug to a depth of 105 feet, and the water all along the line of the railway works had to be brought from the condensers erected at Micháelovsk.

On the Micháelovsk line, by the 1st (13th) April the permanent telegraph line had replaced the field telegraph as far as the wells of Ushák. On the 6th (18th) March, a telegraph station had been opened at Durun, and

on the 21st March (2nd) April the field telegraph opened a temporary station at Kalát-i-Nur-Verdi-Khán. Posts for the permanent line through the *oasis* were cut in the Chuli defile by the 3rd Battalion, Sámur Regiment, and a company of the Stávropol Regiment, and then brought down and used for the line Kalát-Askhabád. In the end of March the telegraph station at Chát was closed.

On the 23th March (9th April), in view of his approaching departure for St. Petersburg, the Temporary Commander of the Troops gave over the command of the troops and the administration to General Röhrberg, who was acting as Chief of the Staff, and under his orders was placed Lieutenant-Colonel Kuzmin-Karaváyoff, who proceeded to form a new Staff.

General Skobelev's Staff was sent to Krásnovodsk where they had still to remain some time for the liquidation of accounts.

On the 12th (24th) April General Skobelev finished his inspection of the proposed frontier, and on the 13th (25th) arrived at Gok-Tapa. Thence he went on to Bámi and then to Krásnovodsk, where he remained two days to settle up affairs, and then on the 27th April (7th May)* he sailed in the steamer *Chikishliár* for Tsaritsin.

The Departmental Staffs of the Force remained at Krásnovodsk till 1st (13th) June when they were broken up, and their duties taken over by the temporary administration mentioned above.

To finish up the affairs of the Expedition, a special committee under Major-General Vasiliev was sent from Tiflis.

On his departure General Skobelev left affairs in Trans-Caspia in the following state:—

After the departure of the troops of the 21st Division, the 1st Battery 21st, 3rd Battery 19th, and 4th Battery 20th Brigade, the division of dragoons, the Poltáva Cossacks, and the 3 *Sotnias* of the 5th Orenburg Cossacks,† there remained the following troops in the country:—

73rd (Crimean) Regiment (3 battalions).

74th (Stávropol) Regiment (3 battalions).

Krásnovodsk Battalion (2 companies).

Trans-Caspian Battalion (4 companies).

Taman Cossack Regiment (6 *Sotnias*).

5th and 6th *Sotnias*, Lába Cossacks.

4th Battery, 19th Brigade.

6th (Mountain) Battery, 21st Brigade.

Company of Gunib Fortress Artillery.

3rd company, 2nd Caucasus Sapper Battalion.‡

Heliographic detachment.

Total, 7½ battalions, 8 *Sotnias*, 16 field guns, a company of artillery, and a heliographic detachment.

These troops were distributed as follows on the 25th April (7th May):—

A.—ON THE ATRAK LINE.

Chikishliár.—1st and 2nd companies 73rd Regiment, 1 section, 5th *Sotnia* Lába Cossacks, 2 9-pr. guns, 2 mitrailleuses.

Karája-Báhir.—1 section, 5th *Sotnia*, Lába Cossacks.

* Thus General Skobelev, who landed on 1st (13th) May 1880, had been three days less than a year in the country.—*Author*.

† The Orenburg *Sotnias* were sent by boat to Samára after General Skobelev had left.—*Author*.

‡ Left temporarily in the country by General Röhrberg's wish, to carry out engineer works, till it could be replaced by another.—*Author*.

Yágli-Olum.—3rd company, 73rd Regiment, 1 section, 5th *Sotnia*, Lába Cossacks.

Chát.—1 section, 5th *Sotnia*, Lába Cossacks.

Duz-Olum.—4th company, 73rd Regiment, 1 section, 6th *Sotnia*, Lába Cossacks, 1 mitrailleuse.

Társakán.—1 section, 6th *Sotnia*, Lába Cossacks.

Khvója-Kala.—5th company, 73rd Regiment, 1 section, 6th *Sotnia*, Lába Cossacks, 2 4-pr. guns.

Band-Hassan.—1 section, 6th *Sotnia*, Lába Cossacks.

Total, 5 companies, 2 *Sotnias*, 8 guns.

B.—ON THE MICHÁELOVSK LINE.

Krásnovodsk, 2 companies Krásnovodsk Local Battalion, 2 4-pr. muzzle-loading guns.

Micháelovsk.—Part of the railway battalion.

Mulla-Kári.—Part of the railway battalion.

Bála-Ishem.—1st company, Trans-Caspian Battalion, part of the Railway Battalion, 1 4-pr. muzzle-loading gun.

Aidin.— $\frac{1}{2}$ of 2nd company, Trans-Caspian Battalion, part of the Railway Battalion, 1 4-pr. muzzle-loading gun.

Akcha-Kuina.— $\frac{1}{2}$ of 2nd company, Trans-Caspian Battalion, part of the Railway Battalion.

Kazánjik.—3rd company, Trans-Caspian Battalion, 1 section of 1st *Sotnia*, Taman Cossacks, 1 4-pr. gun.

Kizil-Ardát.—4th company, Trans-Caspian Battalion, $\frac{1}{2}$ of 1st *Sotnia* Taman Cossacks, 3 4-pr. guns.

Total, 10 companies, $\frac{3}{4}$ *Sotnia*, 8 guns.

C.—IN THE OASIS.

Bámi.—6th and 7th companies, 73rd Regiment, 1 section, 1st *Sotnia*, Taman Cossacks, 6 4-pr. guns, 1 mitrailleuse.

Archmán.—12th company, 73rd Regiment, 1 section, 4th *Sotnia*, Taman Cossacks, 1 4-pr. gun, 1 mitrailleuse.

Durun.—5th and 11th companies, 73rd Regiment, 3 sections, 4th *Sotnia*, Taman Cossacks, 1 4-pr. gun, 1 mitrailleuse.

Gok-Tapa.—9th and 10th companies, 73rd Regiment, 1 section, 5th *Sotnia*, Taman Cossacks, 6 9-pr. guns, and 4 mortars.

Buzmein.—3 sections, 5th *Sotnia*, Taman Cossacks.

Chuli.—(in the defile of the Kopet-Dágh).—6th *Sotnias*, Taman Cossacks.

Total 7, companies, $3\frac{1}{4}$ *Sotnias*, 21 guns.

D.—ADVANCED FORCE AT ASKHÁBÁD.

74th (Stávropol) Regiment (12 companies), 2nd and 3rd *Sotnias*, Taman Cossacks, 4th Battery, 19th and 6th (Mountain) Battery, 21st Brigade, 3rd company, 2nd Sapper Battalion and Heliographic Detachment.

Total, 13 companies, 1 detachment, 2 *sotnias*, 16 field guns.

Besides the above, there were in the armament of the forts and in the artillery stores 18 4-pr. guns, 1 mitrailleuse, and 12 mortars.*

Grand Total, 5,886 Infantry, 907 Cavalry, 760 Artillery men.†

* The company of fortress artillery was distributed among the forts.—*Author.*

† In Appendix 86, see Numerical Return of the several Arms.—*Author.*

on the 21st March (2nd) April the field telegraph opened a temporary station at Kalát-i-Nur-Verdi-Khán. Posts for the permanent line through the *oasis* were cut in the Chuli defile by the 3rd Battalion, Sámur Regiment, and a company of the Stávropol Regiment, and then brought down and used for the line Kalát-Askhabád. In the end of March the telegraph station at Chát was closed.

On the 28th March (9th April), in view of his approaching departure for St. Petersburg, the Temporary Commander of the Troops gave over the command of the troops and the administration to General Röhrberg, who was acting as Chief of the Staff, and under his orders was placed Lieutenant-Colonel Kuzmin-Karaváeff, who proceeded to form a new Staff.

General Skobelev's Staff was sent to Krásnovodsk where they had still to remain some time for the liquidation of accounts.

On the 12th (24th) April General Skobelev finished his inspection of the proposed frontier, and on the 13th (25th) arrived at Gok-Tapa. Thence he went on to Bámi and then to Krásnovodsk, where he remained two days to settle up affairs, and then on the 27th April (7th May)* he sailed in the steamer *Chikishliár* for Tsarítsin.

The Departmental Staffs of the Force remained at Krásnovodsk till 1st (13th) June when they were broken up, and their duties taken over by the temporary administration mentioned above.

To finish up the affairs of the Expedition, a special committee under Major-General Vasiliev was sent from Tiflis.

On his departure General Skobelev left affairs in Trans-Caspia in the following state:—

After the departure of the troops of the 21st Division, the 1st Battery 21st, 3rd Battery 19th, and 4th Battery 20th Brigade, the division of dragoons, the Poltava Cossacks, and the 3 *Sotnias* of the 5th Orenburg Cossacks,† there remained the following troops in the country:—

73rd (Crimean) Regiment (3 battalions).

74th (Stávropol) Regiment (3 battalions).

Krásnovodsk Battalion (2 companies).

Trans-Caspian Battalion (4 companies).

Taman Cossack Regiment (6 *Sotnias*).

5th and 6th *Sotnias*, Lába Cossacks.

4th Battery, 19th Brigade.

6th (Mountain) Battery, 21st Brigade.

Company of Gunib Fortress Artillery.

3rd company, 2nd Caucasus Sapper Battalion.‡

Heliographic detachment.

Total, 7½ battalions, 8 *Sotnias*, 16 field guns, a company of artillery, and a heliographic detachment.

These troops were distributed as follows on the 25th April (7th May):—

A.—ON THE ATRAK LINE.

Chikishliár.—1st and 2nd companies 73rd Regiment, 1 section, 5th *Sotnia* Lába Cossacks, 2 9-pr. guns, 2 mitrailleuses.

Karája-Báhir.—1 section, 5th *Sotnia*, Lába Cossacks.

* Thus General Skobelev, who landed on 1st (13th) May 1880, had been three days less than a year in the country.—*Author*.

† The Orenburg *Sotnias* were sent by boat to Samára after General Skobelev had left.—*Author*.

‡ Left temporarily in the country by General Röhrberg's wish, to carry out engineer works, till it could be replaced by another.—*Author*.

Yagli-Olum.—3rd company, 73rd Regiment, 1 section, 5th *Sotnia*, Lába Cossacks.

Chát.—1 section, 5th *Sotnia*, Lába Cossacks.

Duz-Olum.—4th company, 73rd Regiment, 1 section, 6th *Sotnia*, Lába Cossacks, 1 mitrailleuse.

Társakán.—1 section, 6th *Sotnia*, Lába Cossacks.

Khvája-Kala.—5th company, 73rd Regiment, 1 section, 6th *Sotnia*, Lába Cossacks, 2 4-pr. guns.

Band-Hassan.—1 section, 6th *Sotnia*, Lába Cossacks.

Total, 5 companies, 2 *Sotnias*, 8 guns.

B.—ON THE MICHÁELOVSK LINE.

Krásnovodsk, 2 companies Krásnovodsk Local Battalion, 2 4-pr. muzzle-loading guns.

Micháelovsk.—Part of the railway battalion.

Mulla-Kári.—Part of the railway battalion.

Bála-Ishem.—1st company, Trans-Caspian Battalion, part of the Railway Battalion, 1 4-pr. muzzle-loading gun.

Aidin.— $\frac{1}{2}$ of 2nd company, Trans-Caspian Battalion, part of the Railway Battalion, 1 4-pr. muzzle-loading gun.

Akcha-Kuima.— $\frac{1}{2}$ of 2nd company, Trans-Caspian Battalion, part of the Railway Battalion.

Kazánjik.—3rd company, Trans-Caspian Battalion, 1 section of 1st *Sotnia*, Taman Cossacks, 1 4-pr. gun.

Kizit-Ardát.—4th company, Trans-Caspian Battalion, $\frac{1}{2}$ of 1st *Sotnia* Taman Cossacks, 3 4-pr. guns.

Total, 10 companies, $\frac{3}{4}$ *Sotnia*, 8 guns.

C.—IN THE OASIS.

Bámi.—6th and 7th companies, 73rd Regiment, 1 section, 1st *Sotnia*, Taman Cossacks, 6 4-pr. guns, 1 mitrailleuse.

Archmán.—12th company, 73rd Regiment, 1 section, 4th *Sotnia*, Taman Cossacks, 1 4-pr. gun, 1 mitrailleuse.

Durun.—8th and 11th companies, 73rd Regiment, 3 sections, 4th *Sotnia*, Taman Cossacks, 1 4-pr. gun, 1 mitrailleuse.

Gok-Tapa.—9th and 10th companies, 73rd Regiment, 1 section, 5th *Sotnia*, Taman Cossacks, 6 9-pr. guns, and 4 mortars.

Buzmein.—3 sections, 5th *Sotnia*, Taman Cossacks.

Chuli.—(in the defile of the Kopet-Dágh).—6th *Sotnias*, Taman Cossacks.

Total 7, companies, $3\frac{1}{4}$ *Sotnias*, 21 guns.

D.—ADVANCED FORCE AT ASKHÁBÁD.

74th (Stávropol) Regiment (12 companies), 2nd and 3rd *Sotnias*, Taman Cossacks, 4th Battery, 19th and 6th (Mountain) Battery, 21st Brigade, 3rd company, 2nd Sapper Battalion and Heliographic Detachment.

Total, 13 companies, 1 detachment, 2 *sotnias*, 16 field guns.

Besides the above, there were in the armament of the forts and in the artillery stores 18 4-pr. guns, 1 mitrailleuse, and 12 mortars.*

Grand Total, 5,886 Infantry, 907 Cavalry, 760 Artillery men.†

* The company of fortress artillery was distributed among the forts.—*Author*.

† In Appendix 86, see Numerical Return of the several Arms.—*Author*.

The troops on the lines of communication and in the *oasis* were placed in forts commanding their water-supply and having a sufficient field of fire.

At Gok-Tapa the troops were split up, $\frac{1}{2}$ company and 10 guns occupying the hill of Dangil-Tapa, on which a fort had been constructed within the limits of the former fortress, while the rest of the troops were encamped on the bank of the Sekiz-Yáb at the very foot of the Kopt-Dágh range.

A fortified post had been constructed at Askhabád.

The troops were abundantly furnished with *gula-pelikas* and *kibitkas*.

There had been brought up to the Askhabád artillery-store :—

4-pr. bronze guns	...	...	...	18
Mitrailleuse	...	...	...	1
18-pr. mortars	...	...	...	12
Rounds for light (steel) guns	...	...	...	2,154
Rounds for 4-pr. (bronze) guns	...	...	...	3,879
Rounds for 3-pr. (mountain) guns	...	...	...	1,706
Shells for 18-lb. mortars	...	...	...	1,528
Cartridges for mitrailleuse	...	...	...	4,575
Infantry ammunition rounds	...	...	...	2,99,584
Cavalry " "	...	...	...	377,126
Revolver " "	...	...	...	7,150
Rocket-troughs	...	...	...	23
War rockets	...	...	...	262

In general there were in possession and in the magazines of Trans-Caspia :—

9-pr. guns	...	...	8	(a ninth was unserviceable).
4-pr. "	...	...	25	
18-lb. mortars	...	...	16	
Mitrailleuses	...	...	8	

Artillery Ammunition (rounds).

For 9-pr. guns	...	...	...	1,599
" 4-pr. guns	...	...	...	8,088
" 3-pr. guns	...	...	...	1,997
" mortars	...	...	...	2,020
" light (steel) guns	...	...	...	2,239

Rifles.

Berdan	...	...	...	308
Krinka	...	...	...	22
Karle	...	...	...	44
7 line (old pattern)	...	...	...	143
Liège rifles	...	...	...	115

Rounds of S. A. Ammunition.

Infantry	...	...	...	2,911,894
Cavalry	...	...	...	474,696
Karle	...	...	...	99,077
Krinka	...	...	...	78,863
Revolver	...	...	...	9,786
Peabody	...	...	...	16,580
Mitrailleuse	...	...	...	37,150
Rocket-troughs	...	...	...	27
War rockets	...	...	...	1,916*

All fortified posts were armed and provided with supplies to last, approximately to 1st (13th) September 1881.

* In Appendices 87 and 88, see Return of Artillery and Engineer *Matériel* in Trans-Caspia on the 1st (13th) May 1881.—*Author.*

The principal supply-magazines were at Krásnovodsk, Chikishliár, Gok-Tapa, and Ashkábád. The Chikishliár magazines supplied all the magazines on the Atrak line, *viz.*, at Yágli-Olum, Duz-Olum, and Khwája-Kala. Those at Karája-Bátin, Chát, Társakán, and Band-Hassan were destined to be broken up and their stores transferred to Yágli-Olum, Duz-Olum, Khwája-Kala, and Bámi.

On the Micháelovsk line, there were magazines at Micháelovsk, Bála-Ishem, Akcha-Kuima, Kazánjik, and Kizil-Arvát, which were supplied from the Krásnovodsk magazine.

In the *oasis* there were supply-magazines at Bámi, Archmán, Durun, Gok-Tapa, and Ashkábád, the first being fed from Krásnovodsk and those at Archmán and Durun partly from Bámi and partly from Gok-Tapa. The supplies prepared in Persia were transported to Gok-Tapa and Ashkábád.*

At Krásnovodsk, besides the condenser set up on shore, a floating condenser, which was taken to Micháelovsk, was at work. For Yágli-Olum, a boiler from a steam launch (which had reached it in 1880) had been obtained from the naval authorities and was used to condense water for the garrison.

For the general transport of supplies, 420 4-wheeled waggons were available. The troops which had been sent to the west coast of the Caspian had handed over their waggons to a special committee on reaching the point where they were entrained, giving up 40 waggons in all, and bringing the total up to 460, giving a carrying power of 8,000 cwt. Besides these, camels had been hired from the Tekkes who had returned, for the transport of supplies in the *oasis*.

The sanitary condition of the troops was perfectly satisfactory and the typhus, which had appeared among the troops after the capture of Gok-Tapa, had begun to diminish considerably on the approach of the hot weather. The same may be said of scurvy and dysentery which affected the troops little, now that they were in a good sanitary condition.

All the interior of the fortress of Gok-Tapa and the ground round about it over which the fighting had taken place had been carefully disinfected. All the troops and baggage sent to the west coast of the Caspian were also carefully disinfected at Krásnovodsk and Chikishliár in buildings specially constructed for this purpose.

The total percentage of sick only reached 10 per cent. Temporary field hospitals were established at Chikishliár, Krásnovodsk, Bámi, and Micháelovsk, half-hospitals at Duz-Olum, Gok-Tapa and Ashkábád, infirmaries at Khwája-Kala, Durun, Kizil-Arvát, Kazánjik, and Bála-Ishem. The evacuation of the sick to the west coast of the Caspian was finished.

The railway had been constructed for 115 *versets* (76½ miles), and descended the eastern slope of the pass across the Little Balkháns. On the section already opened trains were working, and troops, stores, and passengers were conveyed. The earthworks had been completed and the road levelled up to Kazánjik, and parallel with this ran the Décauville line up to 146 *versets* (97½ miles) from Micháelovsk. The following were the stations :—

Micháelovsk	...	...	...	...	2nd class.
Mulla-Kari	...	...	...	...	3rd "
Kutol	...	...	...	...	3rd "
Bála-Ishem	...	...	...	...	2nd "
Aidin	...	...	...	...	3rd "
" Pass " (<i>Perevól</i>)	...	...	...	...	3rd "

* In Appendix 89, see Return of Supplies and of Marine Provisions, Forage, &c., in the Supply-Dépôts of Trans-Caspia on the 1st (13th) May 1881.—*Author*.

The earthworks and the laying of the line had been carried out partly by contract, partly by government. The contractor employed about 750 workmen; but the laying of the line, till the arrival of more of the contractor's workmen, was carried out by the men of the Railway Battalion and 100 hired government labourers. The most difficult part of the work had been completed and there only remained level salt plains, not requiring much earthwork, almost right up to Kizil-Arvat. The section of the Railway from Micháelovsk to Mulla-Kári, which lay through shifting sands, did not hinder the working of the line; and although in winter and autumn the line was sometimes blocked by sand, the deposit was always in such insignificant quantities that it could be cleared away in time to prevent a stoppage of traffic.

Hardly any steps had been taken for the construction of buildings along the line, as it had not yet been quite settled what type of buildings was best suited to local requirements. The preparation of both kiln-burnt and sun-burnt bricks had however been begun; also the cutting of flagstones and the preparation of line in the Great Balkháns at 9 *vershs* (6 miles) from Bála-Ishem, to which quarries the Décauville tramway had been laid. In the estimate for the construction of the line there had only been included sums for buildings for telegraph offices at ten stations, but for the actual station buildings themselves no sums had been assigned, and it was not proposed to construct houses for the repairing workmen between stations or for the line-guards, although such were very necessary. To give protection to the workmen and guard the line, 4 large and 5 small rough-hewn wooden blockhouses were built at equal intervals between Mulla-Kari and Aidin and these were prepared for defence. At the period now spoken of these blockhouses were occupied by the workmen repairing the line and the line-guards. (*See Sketch.*)

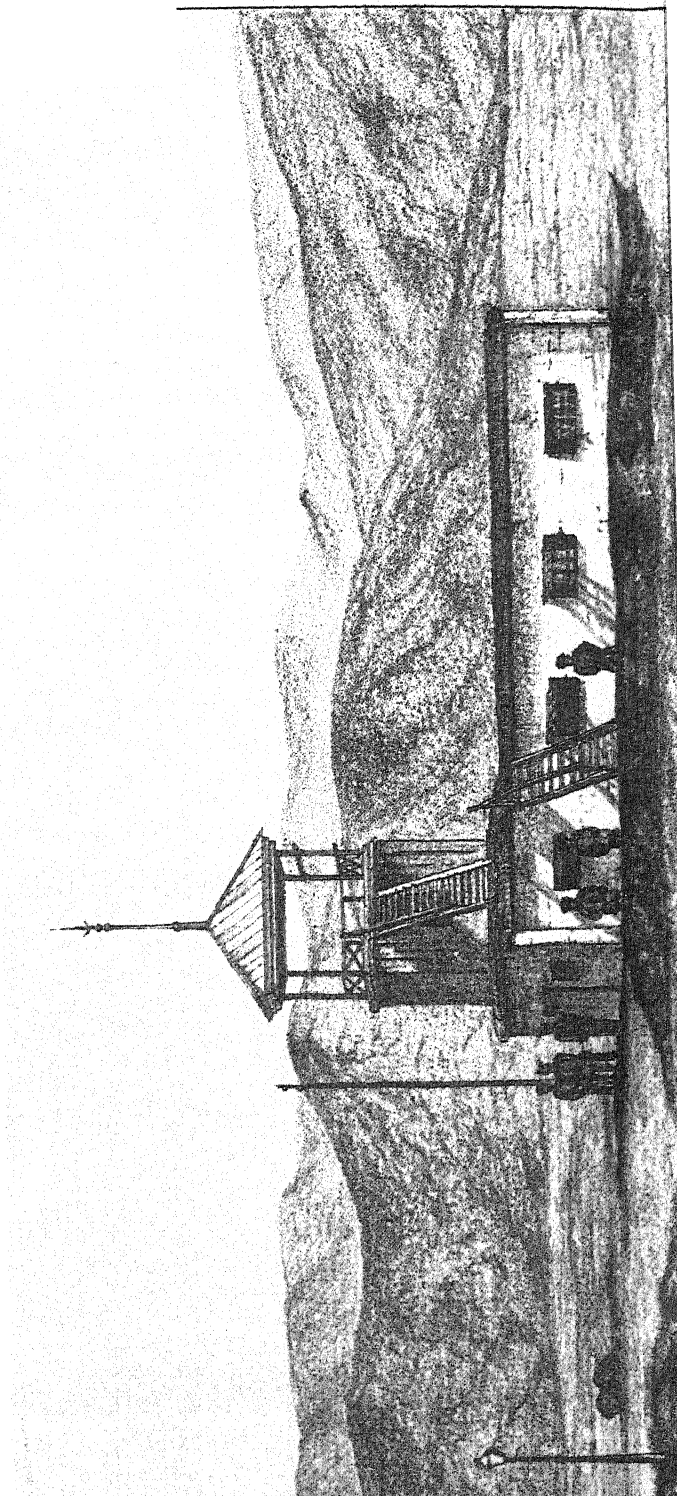
The vital question of water-supply had been settled by arranging that special water-trains should run over the waterless stretch of 90 *vershs* (60 miles) between Bála-Ishem and Kazánjik, and, if no extraordinary traffic were to be expected, there could be no special disadvantage in this. Our experience in winter had shewn that if it was necessary to provide a constant supply of water at some central point between Bála-Ishem and Kazánjik, it was easy at small cost to collect rain water in winter and keep it all through the summer in sufficient quantity, but the necessity for this was not apparent. The remaining points of the line were provided with water.

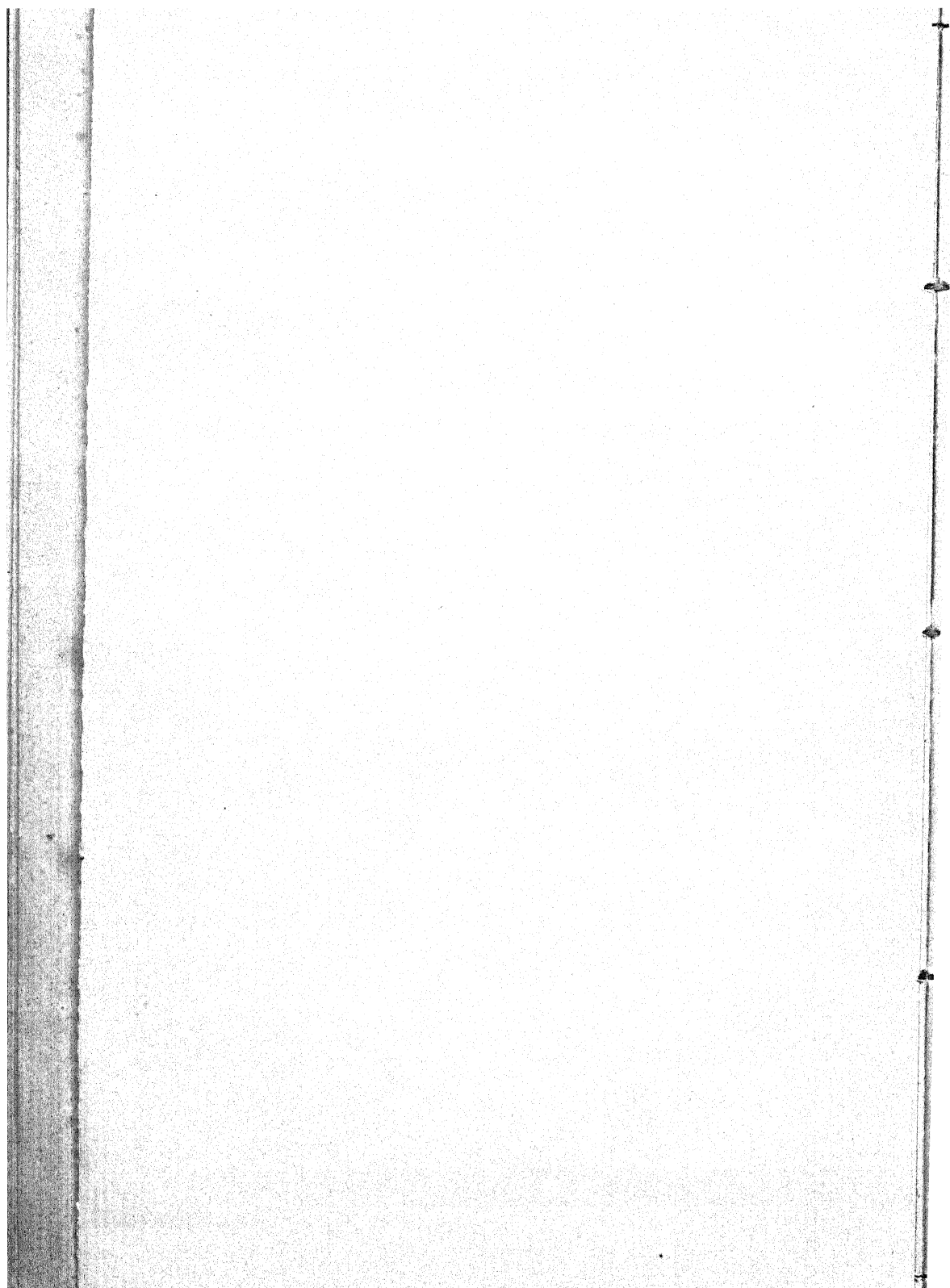
At Micháelovsk, all Nobel's condensing *apparati* were at work and gave 40,500 gallons of water daily.

The harbour at Micháelovsk was illuminated with the Yablochkoff system of electric lighting. Mechanical implements for the workshops had been ordered by the General Staff, but the final choice of a place for these workshops depended upon whether it was proposed to take the railway further than Kizil-Arvat or to stop it at that place.

Of the sums assigned for the construction of the line Mulla-Kari-Kizil-Arvat, up to the 12th (24th) April 1881, 695,829 *roubles* had been spent, and, in addition, 386,000 *roubles* had been handed over to the General Staff for the purchase of mechanical implements and articles for the water-supply. There still remained a credit of 1,503,102 *roubles* in the hands of the Intendance at Krásnovodsk.

The expenses of construction had not exceeded the estimated sums except in the case of the telegraph which it had been proposed to construct along with the railway and which, if thus set up, would have been much cheaper; but, as a fact, the permanent telegraph line was pushed on ahead of the





railway and the transport of materials for it and the hire of extra workmen at higher wages were the causes of the excessive expenditure on this head.

From the time of the opening of traffic on the 1st section of the railway up to Mulla-Kari, the working of the whole line—goods, troops, and passengers—was carried on out of separate funds from those assigned for the construction of the line; but although the expenses on this head might be covered by a saving on others, it was impossible, before the railway was completely finished, to say with certainty whether the receipts would cover the cost of working of the line.

The Décauville tramway, although it had been of no small use for the transport of stores, especially from Mulla-Kari to Bála-Ishem and thence to Aidin, was not, temporarily laid as it was, as satisfactory as had been expected. Had it been laid regularly on a permanent way and regularly worked, it undoubtedly would have been very useful, especially on level ground with plenty of water. The experience on the branch line to the Balkháns shewed that on this light railway Décauville's locomotive, instead of horses, might have been used with advantage.

The telegraph was finished up to Askhábad, and the following stations had been opened :—

Chikishliár	...	} Stations of the Imperial Telegraph.
Yágli-Olum	...	
Duz-Olum	...	
Khwája-Kala	...	
Krásnovodsk	...	
Micháelovsk	...	} Telegraph Stations of the Trans-Caspian Railway.
Mulla-Kari	...	
Bála-Ishem	...	
Aidin	...	
"Pass" (<i>Perevól</i>)	...	
Kazánjik	...	Imperial Telegraph Station.
Kizil-Arvát	...	} Military Field Telegraph Stations.
Bámi	...	
Archmán	...	} Stations of the Imperial Telegraph.
Durun	...	
Gok-Tapa	...	
Askhábad	...	

The state of affairs in the newly-occupied country was as follows. From the Tajand and from Marv people were still constantly arriving in small parties. Those who returned settled on their former lands and began their agriculture, except the people of Bámi and Kizil-Arvát, who, being occupied almost exclusively in cattle-rearing, still remained in the desert, but would soon have to come in. In all, in 35 villages 7,000 *kibithkas* of *Chamurs* (about from 23,000 to 25,000 souls of both sexes) had settled down again. Of the influential men, Mahtum-Kuli-Khán and Kurbán-Murád-Ishán had not yet returned. There was no hope of the return of the former, but the latter would probably come in.

There had been issued to the people 5,920 cwt. of wheat, 3,392 cwt. of maize, 640 cwt. of flour, and about 8,000 *kibithkas*. Those who had no water of their own, had been given such by order from that formerly belonging to families who had not returned or all of whose members had fallen at Gok-Tapa or who had migrated. The people had chosen their own Elders and *Mir-ás*s to regulate the water-supply. About 300 Tekke families who had long before emigrated to Persia and had there received grants of land had also returned to the *oasis*.

The majority of the *Chárvas* had gone out into the desert to Khiva and Marv, and notables had been sent to them to invite them to return to their pastures in Akhál. All mills and *karzzes* which had been destroyed during the war had been repaired at our expense.

The decision of disputes among the inhabitants was left as before to their *Kázis*, but in more important cases the Tekkes came to the Russian authorities. As far as possible, the population had been disarmed, and it had been explained to them that henceforth there was to be an end of their raids. All captives in the *oasis* had been set free and sent home. Slavery had been put a stop to.

Many people had returned to the *oasis* who had gained their livelihood by raiding, and these were held in high honour among the masses. It was necessary to find an occupation for them, and many entered our service as *Jigits*.

Complete peace reigned over the whole *oasis* from Kizil-Arvat to Gávárs. Not a shot had been fired after the 12th (24th) January, and the Russian power was everywhere believed in. The terror at the assault had been so great that its impression would long remain in the minds of the people.

The inhabitants who possessed camels had willingly hired them out to the troops on payment. In all 9,073 animals had been obtained in this manner.*

The *Yamúts* did not at first cross to our bank of the Atrak. A small number of their *Kibitkas* which had been nomadizing in our territory returned to Persia, when it was explained to them that they would have to pay a tax for the right of pasturage on our side of the frontier.†

* Report from Spolatbog to the Commander of the Expedition, No. 155, dated 14th (26th) April 1881. In Appendix 70, see List of Settlements in the Akhal-Tekke *Casis* showing the number of Turkumáns who had returned to them.—*Author*.

† Diary of the Asiatic Section of the General Staff, 1881, No. 13, page 132-140, and Notes given to General Skobelev by Prince Khilkoff.—*Author*.

CHAPTER XVII.

Mission of Colonel Grodekoff to the northern provinces of Persia to form a lateral supply base.—Instructions given to him by the Temporary Commander of the Trans-Caspian Field Force and by the Russian Ambassador at Teherán.—Relief of the *Sipah-Salar*.—The Kurd provinces.—*Ilkhánis*.—Difficulties experienced by Colonel Grodekoff in fulfilling his mission.—Formation of supply-depôts near the Tekke frontier.—Transport of the supplies collected to Gok-Tapa and to Askhábád.—Cost of the whole of the victualling operations in Persia.

BEFORE leaving St. Petersburg, General Skobelev had thought of utilizing Persia as a source of supply for his army and of forming a lateral base of supplies as near as possible to Gok-Tapa.

On arriving at Chikishliár, one of his first cares was to write to our Ambassador, Zinóvieff, saying that he hoped to make use of Khurássán, Bujnurd, Kuchán, and Daragaz as sources of supply and partly of means of transport also, and that he therefore requested his co-operation when the time came.*

Zinóvieff turned to the *Sipah-Salar-Azam*, and procured from him on the 30th May (11th June) the following instructions to the *Ilkhánis* of Bujnurd and Kuchán:—"The newly-appointed commander of the troops at Chát and elsewhere, General Skobelev, has applied to the Russian Embassy to obtain for him from the Persian Government instructions for you to co-operate with the commissary, who will be sent by His Excellency to Kuchán (Bujnurd) to purchase supplies and other necessities. In view of this and of the friendship which subsists between the two powers, Persia and Russia, I order you, in the event of General Skobelev sending a commissary or other person to Kuchán (Bujnurd) to buy supplies or other necessities, to give such commissary or person every assistance, to remove all obstacles from his way, and generally to regard the officer sent by General Skobelev as an agent sent by a friendly and respected power. You will be guided by this principle, and will act in accordance with it and report to me of everything."

Zinóvieff did not think it necessary to obtain similar instructions for the Governor of Daragaz, as the theatre of our operations was far distant from that province, and as in Persia it is generally best to obtain as few such orders as possible, because with a multiplicity they not unfrequently lose their force.†

In the event of the necessity arising of our being forced to buy in Khurássán, at short notice, a considerable quantity of supplies, the Ambassador got a promise from the Government that, as in 1879, a special Persian commissary with full powers should be sent to the place of purchase.‡

In 1879, General Lázareff had meant to make use of the Kurdish provinces for the collection of supplies, and had even sent an Agent, Lieutenant Zainalbekoff, to Bujnurd. He, however, was not furnished with money, as there was very little of it in the treasure chest, and the required sums§ were found by the contractor Kargánoff, who sent his clerks with the money.

* Letter from General Skobelev to Zinóvieff, No. 1, dated 12th (24th) May 1880.—*Author*.

† Letter from Zinóvieff to General Skobelev, No. 283, dated 5th (17th) June 1880.—*Author*.

‡ Letter from Zinóvieff to General Skobelev, No. 281, dated 5th (17th) June 1880.—*Author*.

§ In all, 2,000 *tománs*.—*Author*.

General Lázareff had meant to have the supplies so collected sent to Chát and Duz-Olum.

From Chikishliár to Chát the distance is 132 *versets* (88 miles) and to Duz-Olum 180 *versets* (120 miles). From Bujnurd to either of the two latter is about 200 (133½ miles). If we suppose that the supplies had been taken from Bujnurd to Chát and Duz-Olum, they would have had to traverse 182 and 135 *versets* (121½ and 90 miles) to reach Burma, where General Lázareff had proposed to concentrate two months' supply of provisions; and the whole difficulty of the enterprise consisted in their transport over this distance. General Lázareff did not regard the supplies from Persia as a reserve in the event of great losses among the camels, but as the means for the current supply of his force, for the delivery of supplies by sea did not always correspond with the requirements of his troops. In addition to this, to send supplies straight from Bujnurd to Burma would have been excessively risky. Their movement by the caravan route even to Chát and Duz-Olum was also risky, for the road to those places from Bujnurd lies for almost its whole length through a desert tract exposed to the inroads of the Tekkes, and therefore it was impossible to send convoys without an escort. But our troops were forbidden to cross the frontier, and it was impossible to expect an escort from the Persians, even if the latter Government took upon itself to deliver supplies before the capture of Gok-Tapa. For all these reasons, advantage could not be taken of the supplies procured at Bujnurd.

In August 1879, when our force moved up against Gok-Tapa, an official, Yákhia-Bek-Tairoff was sent to Bujnurd with money. On arriving at this place in the beginning of September, he found that Kargánoff's clerks had only been able to buy 3,712·48 cwt. of barley and 727·2 cwt. of flour, but that of this quantity they had weighed none and had not received a single grain. Worse still, they had not a single sack, without which the transport of the supplies was of course impossible.* Tairoff was ordered to send the supplies to Durun, but the preparation of the sacks and the receipt of the supplies required so much time, that our army, even if successful, would have had to retire, as it had no supplies, and the transport service on the Atrak was completely disorganized, and much time would have been required to make arrangements with the Persian Government.

General Tergukásoff, who did not propose to at once occupy the Akhál-Tekke *oasis*, but had made a plan for its subjugation in five years, sent an order to Tairoff in the end of 1879 to sell all he had bought and discharge the transport hired by him.†

In short, supplies collected in Persia could only be of use to us when they were concentrated near the Tekke frontier opposite Gok-Tapa or Askhábád.

In the end of July the question of transport for the Expedition had practically been settled, and its Commander could count on 10,000 Central Asian camels (6,000 bought on the Lower Emba and more than 3,000 from Gromoff, from Khiva and the Ust-Yurt), besides those bought in Mangishlák and those which might be furnished by the Persians. The possibility of in the end of the year transferring our base from the Caspian sea to Bámi and beginning operations against Gok-Tapa had also been established. This mass of camels, however, even with the best organization, could only be expected to do constant work for 4 or 5 months at the most.

* Letter from Tairoff to Colonel Malam, dated Bujnurd, 7th (19th) September 1879.—*Author.*

† Tairoff kept 200 mules at Bujnurd for a whole month in expectation of orders to send supplies to the force.—*Author.*

With the expected camels, a base could be organized at Bámi and troops could be sent up with the necessary baggage to Gok-Tapa; but this would require such exertions that a time could be foreseen when our resources in transport would be completely exhausted. The impossibility of determining the date of the end of our operations against Gok-Tapa, the uncertainty as to whether the Tekkes would prolong their resistance after the fall of their fortress, or, what would be the same thing, after the loss about that time of all our camels, and finally the special nature of the whole situation as shewn by the extreme difficulty of regulating the movements along the lines of communication by these of the advanced force—all these compelled the Commander of the Expedition, on the one hand, to look to Persia for the formation of a new base which we might make use of after the fall of Gok-Tapa, and, on the other, to form a small wheeled-transport with horses which should be our standby after the camels had been lost.

On the 30th July (11th August) General Skobelev telegraphed to the Russian Ambassador at Teherán that he clearly saw the necessity, for the ultimate success of the Expedition, of concentrating a certain proportion of supplies in the northern provinces of Persia. In his opinion, there were two means of obtaining supplies: they might be ordered by a commercial agent under immediate official protection—a protection, however, of which he might not always make honourable use,—or their collection might be entrusted to officers. “In the latter case,” wrote General Skobelev to the Ambassador, “I will answer with my head that the affair will be carried out honourably, carefully, in a politic manner and according to orders, and that the Russian name and our political relations will not be compromised. I think also that the officers chosen by me will understand how to awake suspicion to a less degree than commercial agents, who will look from a mercantile point of view on their *quasi*-official position.” If it appeared that the presence of officers in the northern provinces of Persia was undesirable, they could at once be replaced by commercial agents; but as a rule it was dangerous to employ such on this duty. “An extensive purchase of supplies,” continued General Skobelev, “is after all only half the battle, for with the small amount of transport in the country, much skill, devotion, and finally honesty are necessary to successfully concentrate the supplies at a given point. Our end is to form a lateral base as near as possible to our temporary object of operations—Gok-Tapa.”

In view of such important considerations, the Commander of the Expedition nominated, for the formation of the base in Persia, Colonel Grodekoff, who had already been in this country and was acquainted with its resources and with many influential personages.* General Skobelev requested the Ambassador to give him his conclusions on this matter, as they would influence all his further ideas. “If the above plan is impossible,” he wrote to him, “it is impossible to think of the subjugation of the *oasis* in the immediate future. On the contrary, the concentration of flour and barley at Garmáb will permit of our operating freely. For my part, I will be certain of success before I decide to act.”†

Notwithstanding the displeasure expressed by the Persian Government at some of General Skobelev's dispositions, the Ambassador saw not the least cause to fear danger in fulfilling the General's wishes. Zinóvieff's explanation to the

* Letter from General Skobelev to the War Minister, No. 3, dated Krásnovodsk, dated 24th September (6th October 1880).—*Author*.

† Telegram from General Skobelev to Zinóvieff, dated Duz-Olum, 30th July (11th August) 1880; and letter from General Skobelev to the War Minister, No. 3, dated Krásnovodsk, 24th September (6th October) 1880.—*Author*.

Sipah-Salar-Azam, regarding General Skobelev's proposals in May, had its effect, and the setting at liberty of the Yamút Elders finally effaced all unfavourable impressions. The consent given by the Commander of the Expedition to a Persian Military Agent, Colonel Zulfagar-Khán, being attached to our Staff was received by the Sháh's Government with gratitude.*

On asking Mirza-Hussein-Khán to what extent we might count upon the co-operation of the Sháh's Government, Zinóvieff received an assurance that all the resources of the frontier districts of Khurássán would be placed at our disposal. The Ambassador therefore informed General Skobelev that there would be no obstacle to Colonel Grodekoff and his assistants being sent, but that it was only desirable that they should appear in Persia as commercial agents. In the opinion of the Ambassador, it was necessary to observe this precaution because, according to the *Sipáh-Sálar*, the Persian Government would be placed in a difficult position by the appearance in Khurássán of Russian Officers and by the suspicions which this would arouse in the minds of the English Agents, and also to preserve our officers from the cheating commonly practised in Persia against foreigners, especially those in an official position.†

It must also be remarked that in the Ambassador's telegram‡ on this subject it was stated that there would be no objections to Colonel Grodekoff and the others going into Persia and then came these words: "I do *not* think it advisable that they should be sent in the quality of commercial agents." General Skobelev very naturally took this telegram to mean: "If you do not send officers as commercial agents, it will be necessary to send them in military uniform, all the more so as it has been decided to give them an escort of Cossacks and *gendarmes*."§ The Ambassador had meant to say: "There will be no objection, *but* I think it advisable, &c."|| A mistake had been made in the telegram, and thus our mission left for Persia in uniform, and in the letters from the Temporary Commander of the troops to the *Ilkhánis* of Bujnurd and Kuchán sent by Grodekoff for transmission to those dignitaries, the latter was styled "Colonel." From the appearance of Russian officers in uniform in Persia, several misunderstandings arose, as will be mentioned later on.

Before Colonel Grodekoff's departure, he received the following instructions from the Commander of the Expedition. At Bujnurd and Kuchán he was to purchase two months' supplies for 6,000 men and 3½ months' for 3,000 horses, giving a total of 6,400 cwt. flour, 1,440 cwt. rice, and 21,600 cwt. barley. His main object was to obtain the supplies as soon as possible, and therefore, to save time, it was better to pay too much in Persia than delay the Expedition and cause huge sums to be spent upon it. Neither money nor gifts were

* In 1879, General Lázareff expressed a wish to have a Persian Military Agent attached to his Staff. This proposal was accepted by the Sháh, and Colonel Zulfagar-Khán was nominated. In May 1880, the Persian Government requested Zinóvieff to obtain the consent of General Skobelev to this officer being again attached to the Staff in Trans-Caspia. But Zinóvieff, in communicating to the Persian Government General Lázareff's wish, had been guided by the consideration that the relations between the Temporary Commander of the troops and the Persian frontier authorities had been strained, and that the presence of a Persian Agent with our force would remove all causes of disagreement. In May 1880, when the Persian Government again addressed Zinóvieff with regard to Zulfagar-Khán, it was still impossible to fix the time of our decisive advance against Gok-Tapa, and therefore Zinóvieff had at first refused the request of the Persian Government.—Letter from Zinóvieff to General Skobelev, No. 285, dated 5th (17th) June 1880.—*Author*.

† Report from Zinóvieff, No. 68, dated 12th (24th) August 1880.—*Author*.

‡ Of the 2nd (14th) August 1880.—*Author*.

§ Telegram from General Skobelev to Zinóvieff, No. 4997, dated 9th (21st) September 1880.—*Author*.

|| The Russian word for *not* is *ne*, and for *but* is *no*: hence the mistake.—*J. M. G.*

to be spared, and all means generally were to be used to concentrate the supplies as near as possible to Gok-Tapa and keep them in good order. In this matter he was to keep in view the instructions given him by the Ambassador.*

Colonel Grodekoff was given identical letters for the two *Ilkhánis*, running as follows: "Considering you a well-disposed ally and friend of our good common cause, I, being of the same opinion as you as regards the Tekke brigands, desire to be acquainted more closely with you. For this purpose I send to you a person trusted by me, Colonel Grodekoff, to greet you and to communicate to you the desires of my heart for the common good. After wishing you health and success in all your affairs, I remain, the General and Aide-de-Camp of my most Gracious Sovereign the Emperor, Skobelev."

To assist Colonel Grodekoff were detailed *Voiskóvoi-Starshina* Diakoff, Squadron Commander of the Poltava Cossacks, Staff-Captain Erdeli, Aide-de-Camp to General Skobelev, Lieutenant Krishtopenko, company commander of the Apsheron Regiment, and Yákhia-Bek-Tairoff, a Taotar of Kárábágh, and head clerk of the Staff of the force. Besides these, there were three interpreters, 13 Cossacks of the escort, two *gendarmes*, and four natives. All the officers, Cossacks, *gendarmes* and servants were armed with Cossack Berdán Rifles.

For their expenses were taken 100,000 *roubles* in gold, 12,750 *roubles* worth of Persian *kráns*, and 50,000 *roubles* in credit notes, total 162,750 *roubles*. In addition the mission was provided with gifts to the value of 5,794 *roubles*.

When the question of Colonel Grodekoff's mission was settled, General Skobelev was excessively anxious to remove the slightest causes which might endanger our relations with the Persian officials. With this intention, he strictly forbade not only our troops but also our *Jigits* to cross the Atrak; he was against our troops visiting Kari-Kala and Nukhur (which was not much liked by the Persian Government); and finally he forbade anyone at all being sent across the Atrak to buy camels or on any other pretext. "Now, the *main thing*," he wrote, "is to prepare supplies for the force before Gok-Tapa; everything else is of secondary importance and must therefore be sacrificed."

To win over not only the officials of Buynurd, but also the mass of the people, to our side, General Skobelev proposed to Colonel Grodekoff on his arrival at Buynurd to inquire into the matter of the plundering of a Kurdish caravan on the 14th (26th) August beyond the Sumbár and in Persian territory at a point 60 *versts* (40 miles) from Duz-Olum,† and, if he considered it necessary, to give pecuniary aid to the Kurdish merchants who had suffered.

Afterwards, when Colonel Grodekoff had arrived at Buynurd, the Commander of the Expedition "desiring to do what was pleasant to the renowned *Ilkháni* of Buynurd and to show him the justice of the Imperial Government," ordered Colonel Grodekoff to pay 600 *roubles* to the owners of the camels which had been carried off at Tekenjik‡ in Russian territory. General Skobelev also expressed a desire that Yár-Muhammad-Khán should take this payment upon himself,§ and the money was handed over to the *Ilkháni*.

On the 29th August (10th September) Colonel Grodekoff's mission arrived on the coast at Gaz, where the Russian factory "Perevál" is situated. When

* Instructions from General Skobelev, A.-D.-C., and from his Chief of the Staff, to Colonel Grodekoff, No. 4872, dated 19th (31st August) 1882.—*Author*.

† See Chapter VII.—*Author*.

‡ See Chapter V.—*Author*.

§ General Skobelev's telegram sent from Chikishliár to Astrábád, No. 1550, dated 5th (17th) September 1880.—*Author*.

the men and horses began to be landed from the boat, the head of the Custom-house telegraphed to Teherán that 30 Russian soldiers, who had with them 100 boxes of arms, were being landed. On the 1st (13th) September the mission arrived at Astrábád, and next day left for Sháh-Rud, Colonel Grodekoff himself remaining at Astrábád to await instructions from the Ambassador. The latter had on the 28th August (9th September) notified to the Consul that Russian officers would arrive in the quality of commercial agents, and had requested him to take all measures to keep their military position a secret.* This latter Colonel Grodekoff only learned completely by chance in a conversation with the Consul on the 4th (16th) September, and he thereupon telegraphed to the Ambassador: "According to your decision in your telegram to General Skobelev, we have arrived here, not in the quality of commercial agents, but as soldiers, *i.e.*, we do not conceal our rank."†

At this time an important event happened in Persia, which affected Colonel Grodekoff's mission in this way, that it was detained some time uselessly at Astrábád and afterwards at Sháh-Rud—the *Sipah-Salar-Azam* was removed from his office. The story of the overthrow of Mirza-Hussein-Khán may be summarised as follows:—

Mirza-Hussein-Khán, thanks to his energy and talents, was one of the men best fitted for controlling the home and foreign policy of the Sháh's Government. He recognized perfectly the necessity for Persia of far-reaching internal reforms and had just political views upon the international relations of his country, but his arrogant, ambitious character rendered him distasteful to the near surroundings of the Sháh, and in consequence of their intrigues he fell under the displeasure of his sovereign and was deprived of his office.

It was very well known that the Sháh valued too highly the capabilities of Mirza-Hussein-Khán to deprive himself of the services of a Minister whose influence he could not oppose. The *Sipah-Salar-Azam* was one of those who shared this conviction, and therefore he considered it quite superfluous to make concessions to his enemies or to abstain from actions capable of being used against him. The first symptoms of the Sháh's displeasure shewed themselves in August. Mean-spirited, like the most part of his compatriots, the *Sipah-Salar-Azam* did not, unfortunately, understand how to maintain that firmness and dignity which alone could gain the esteem of his enemies and followers. Not content with making many attempts, directly or indirectly, to arouse feelings of pity for himself in the breast of the Sháh, which only irritated the latter, he conceived the unlucky idea of gaining the priesthood to his side, and, gathering the chief *ulemas* on the 1st (13th) September, he explained to them his idea of turning all his landed property into *vakuf* lands. This circumstance hastened the downfall of the *Sipah-Salar*.

Directly the Sháh received news of the proceedings of his Minister, he informed him of his removal from office in an autograph letter running as follows:—For causes connected with the affairs of the Empire, We have decided to employ your services for some time outside of the capital, being completely satisfied with your former services. We have sent you a rescript written by the Amin-ul-Mulk and signed by Us. You are to obey the orders contained in it, and thus give proof of your fidelity. By this autograph letter We order that you are to continue to enjoy all the marks of honour which

* Telegram from the Ambassador to the Acting Consul at Astrábád, No. 698, dated 28th August (9th September) 1880.—*Author*.

† Telegram of 4th (16th) September 1880, No. 10.—*Author*.

have been given to you. Our special protection is secured to you and all yours, and you may, with full confidence of safety, fulfil the duties entrusted to you and detailed in the rescript.”*

The rescript written by the Amin-ul-Mulk, of which fact mention is made by the Sháh in the above letter, deserves special notice from its originality. While not accusing the *Sipah-Salar*, the Sháh tries to calm and pacify him. The Sháh was far from being displeased with him, and his personal regard was not changed. Not wishing to deprive himself of the services of Mirza-Hussein-Khán, he proposed to give him the position of Governor of his beloved province, namely, Fársistán. This position was by no means lower than that he had hitherto held. If he did not desire that, he might receive the charge of Kazbín† and Kamsé. Finally if he wished for a position of perfect rest, he might be made Governor of Kum. Mirza-Hussein-Khán might communicate directly with the Sháh. Whatever he required would be given to him, but, whatever might be his decision, he could only be allowed to remain two days at Teherán, counting from the minute when he received the letter and the order. Mirza-Hussein-Khán was to avoid doing anything which might bring down upon him the displeasure of the Sháh against the wishes of the latter.

The former *Sipah-Salar-Azam* chose the post of Governor of Kazbín. On leaving he was received by the Sháh, who once more assured him of his personal consideration.‡ Henceforward, however, Mirza-Hussein-Khán was completely removed from all connection with public affairs.§

Among the courtiers who had brought about the fall of Mirza-Hussein-Khán were Nasir-ud-Daula, Minister of Commerce, and Amin-ul-Mulk, the Sháh's secretary, each of whom flattered himself that he would succeed to the position of Minister of Foreign Affairs.

The Sháh, however, decided otherwise. Hardly had the rescript removing Mirza-Hussein-Khán from his office been signed, when the Sháh gave orders for Mirza-Saiyad-Khán, his former Minister of Foreign Affairs, who had been residing at Mashad in the quality of *Mutavali-Báshi* (Superintendent of the domains belonging to the tomb of Imám-Riza), to be summoned to take over the duties of Minister of Foreign Affairs, and the temporary charge of this office was entrusted to Mirza-Muhammad.||

On the change of a minister in Persia, not only do all the orders signed by him usually lose their effect, but so also do the *firmáns* of the Sháh which he countersigned;¶ and as all the former negotiations respecting Colonel Grodekoff's mission had been carried on by the Ambassador through the *Sipah-Salar*, under whose jurisdiction the province of Khurássán lay, the Ambassador had at once to bestir himself to get new orders sent to the authorities of that province. He therefore went in person to the Sháh and again explained to him the objects and importance for us of a supply base being formed. The Sháh

* This rescript was dated 1st (13th) September. Thus the dismissal of the *Sipah-Salar* took place at the same time as Grodekoff's arrival in Persia.—*Author*.

† The birthplace of Mirza-Hussein-Khán.—*Author*.

‡ Telegram from Zinóvieff, No. 76, dated 16th (28th September) 1880.—*Author*.

§ Letter from Zinóvieff to Grodekoff, No. 453, dated 8th (20th) September 1880. In November 1880, at the height of the Kurdish rebellion in Aderbeiján, the Sháh recalled his former *Sipah-Salar* from his retirement and gave him chief command over this province, the Governor of which was Muzafar-ud-din Mirza, the heir to the throne, a weak and indolent man.—*Author*.

|| Telegram from Zinóvieff, No. 77, dated 16th (28th) September 1880.—*Author*.

¶ The Governor of Sháh-Rud excused himself to Colonel Grodekoff for not daring to give him the reception he had a right to expect from his position, by saying that the *Sipah-Salar* had been changed; and that he, the Governor, did not know what views Mirza-Saiyad-Khán might have as regards the Russian mission.—*Author*.

expressed his perfect readiness to confirm the orders previously given as to the Khurássán officials co-operating with the Russian agents in obtaining the necessary quantity of supplies and forage, and ordered the *firmands* asked for by Zinóvieff to be prepared. Hardly, however, was this question decided, when a new difficulty presented itself, namely, the arrival of Colonel Grodekoff and his Staff in military uniform.

The Sháh was very much astonished at this, and demanded an explanation from Zinóvieff. The latter pointed out that all the misunderstanding had arisen from the mistake in the telegram, and expressed a hope that the Sháh would lay no special stress on this trifling circumstance. The latter did not consider further remark necessary, but expressed a wish that Colonel Grodekoff should continue his journey in the quality of a commercial agent.*

General Skobelev was "astonished and even alarmed" at this misunderstanding. He wrote to the Ambassador: "I am alarmed specially because from the day I took over my present duties, I have been enabled to experience and value the heartiness and patriotic feeling you have shewn in assisting me in my difficult work. It is very unpleasant for me to be the unconscious cause of rendering your position, already sufficiently insecure and difficult, as the representative of Russia, more complicated, and that at an important period when the Central Asian Question threatens to place itself on the level of an international affair. To me in particular, as a Russian, it is very important to remove all causes which might tend to awake the suspicion of the Persian Government, and thus indirectly to strengthen the influence of England. My deep conviction, formed in years of almost constant service in Central Asia, is that our influence and power in these countries rests on such a firm basis as to avoid for us the necessity of supporting our prestige by such extreme diplomatic, financial and military measures as the British Government has been compelled to resort to. Our position in Asia has nothing in common with our position elsewhere, and its beginnings must be sought for in that arbitrary and morally unjustifiable state of affairs which England has kept up in India since the beginning of the present century. The might of Russia, God be praised, brings with it in Asia peace, equality, and freedom of persons and property; it is based not on privileged classes, but on the struggling multitude."†

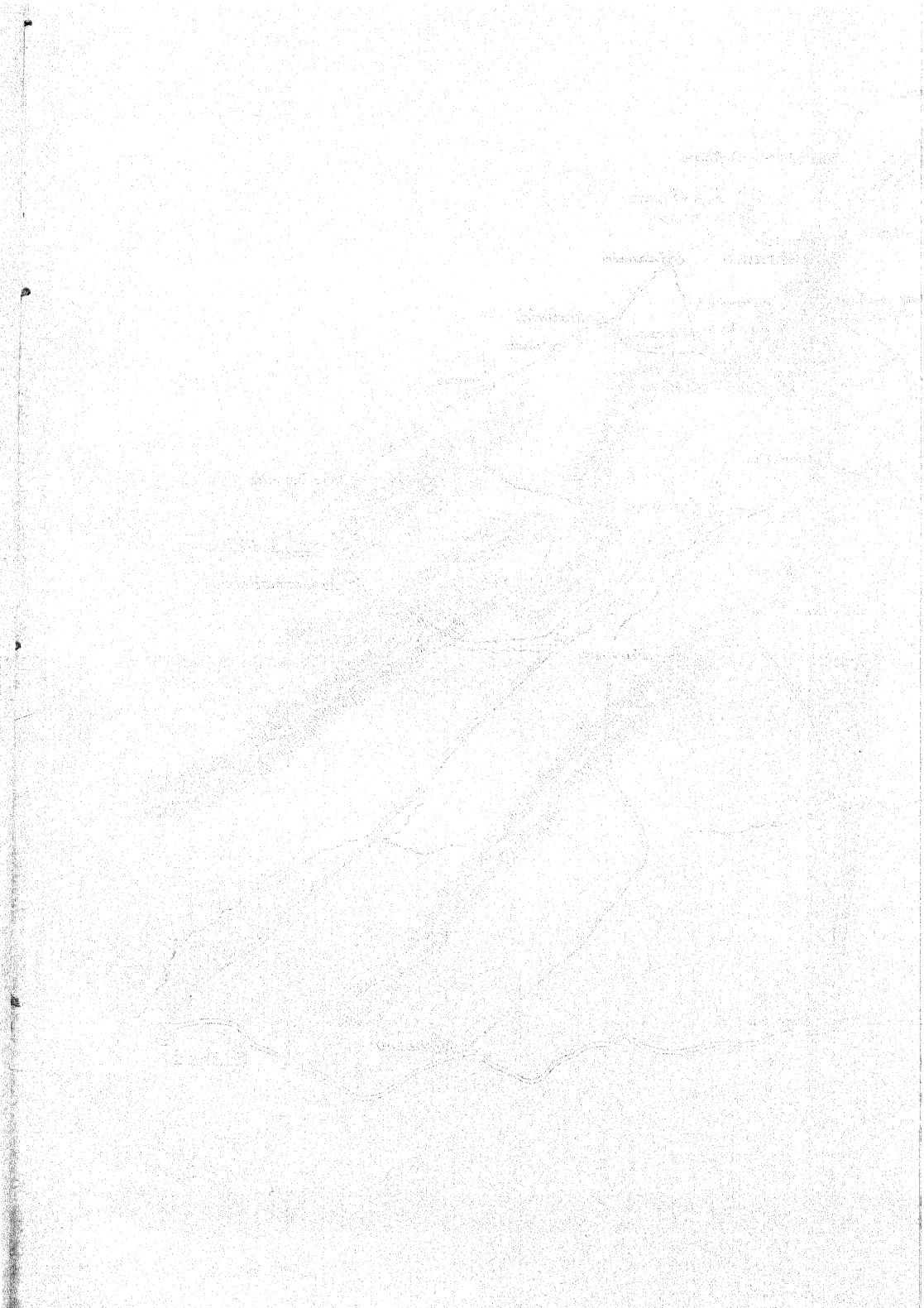
The fears of General Skobelev for the failure of Colonel Grodekoff's mission were so great that he telegraphed to him: "You must always keep in view a decorous withdrawal, on the first demand of the Ambassador."‡

When the news of Colonel Grodekoff's arrival at Astrábád reached Teherán, Thomson visited Zinóvieff and enquired the object of the mission entrusted to Grodekoff, and, among other things, asked whether that officer had not in 1878 made a journey from Táshkand to Astrábád, *viâ* Herát and Mashad. Zinóvieff replied that Grodekoff had actually visited those places, and that now he had come into Persia to gather supplies for our troops. Thomson then reminded Zinóvieff that in 1878 the Persian Government had pointed out to the Ambassadors of Great Britain and of Russia the disadvantages resulting from Foreign Agents being sent into Khurássán, and asked that such missions should be abstained from now also. "In view of the considerations pointed out at that time by the *Sipah-Salar*," said Thomson, "we did not hesitate to recall Captain Napier from that province. But now that a Russian Colonel

* Telegram from Zinóvieff, No. 73, dated 16th (28th) September 1880.—*Author*.

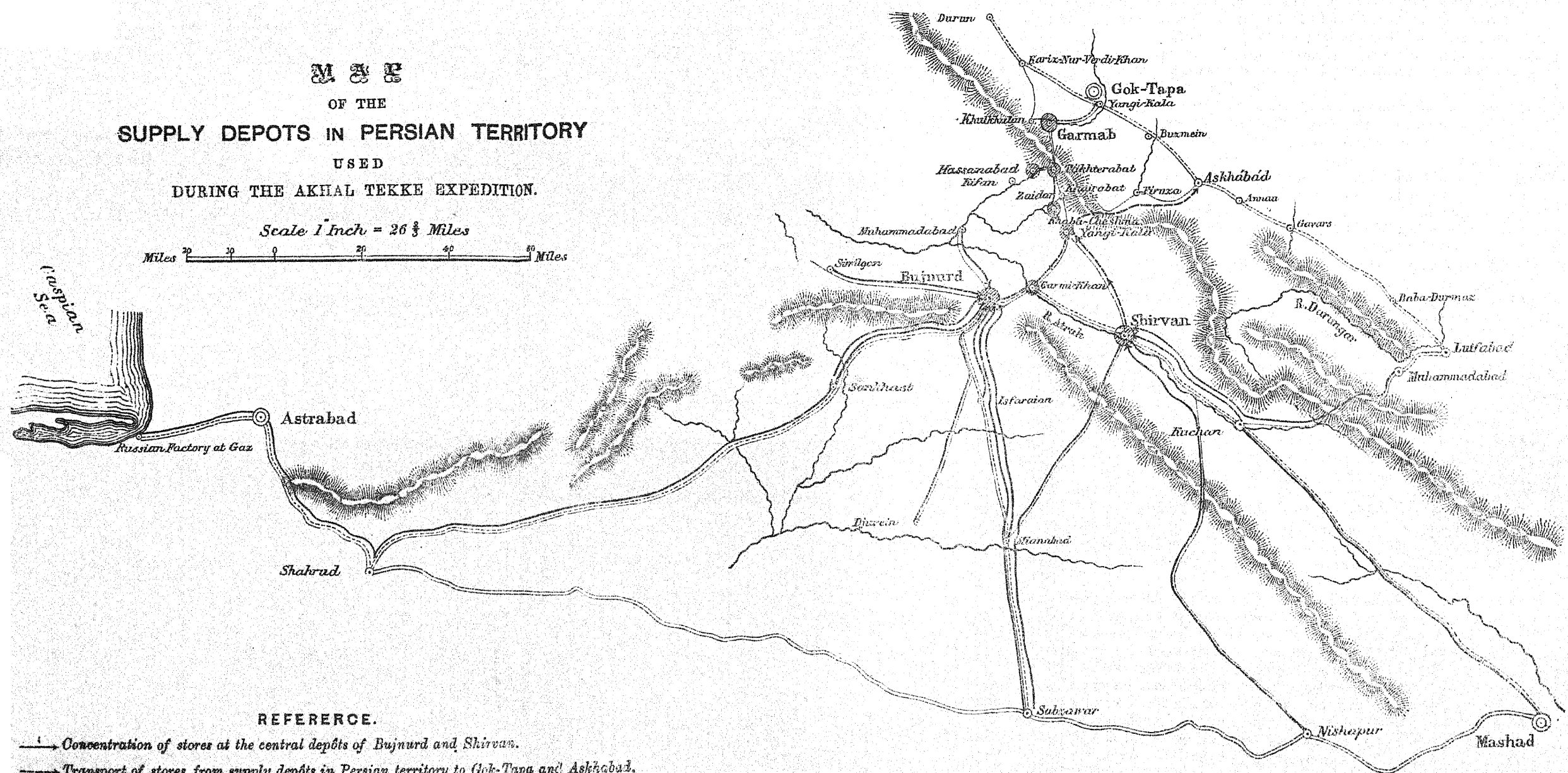
† Letter from Skobelev to Zinóvieff, No. 5053, dated 11th (23rd) September 1880.—*Author*.

‡ Telegram from General Skobelev to Colonel Grodekoff, dated 8th (20th) September 1880.—*Author*.



M A P
OF THE
SUPPLY DEPOTS IN PERSIAN TERRITORY
USED
DURING THE AKHAL TEKKE EXPEDITION.

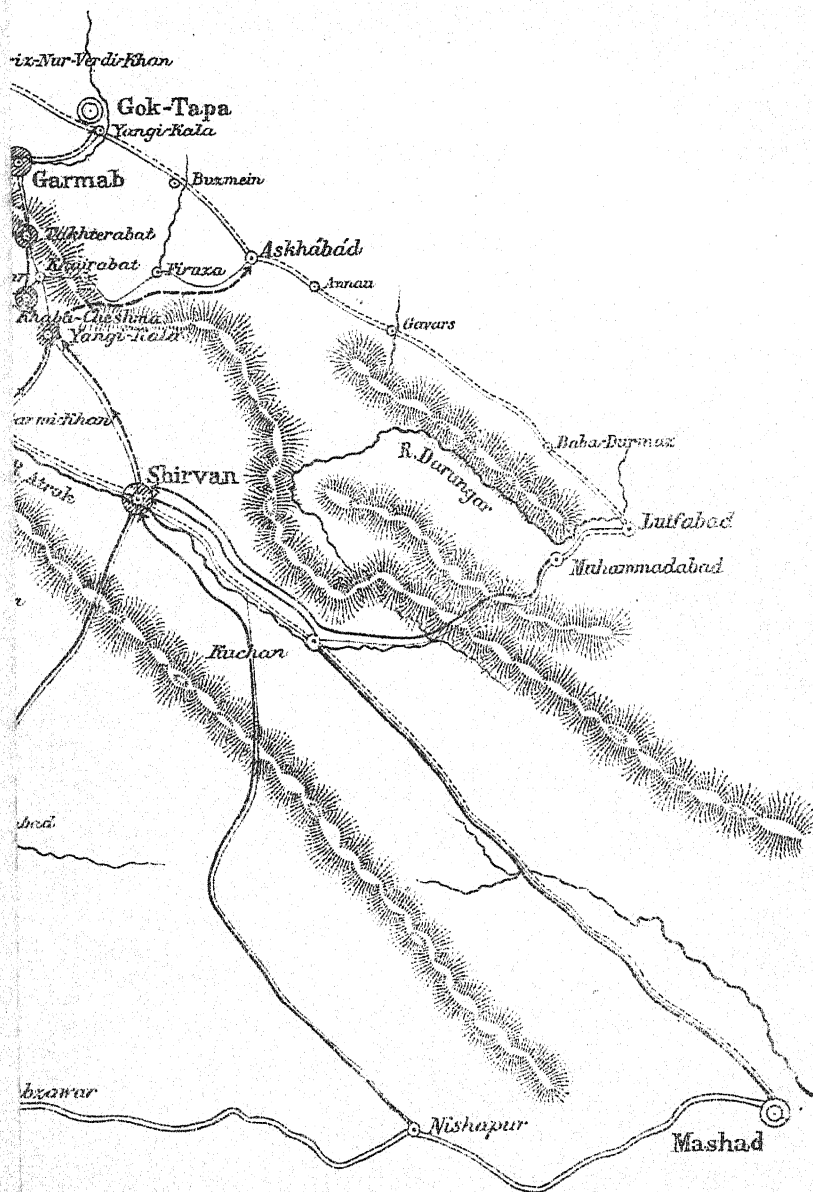
Scale 1 Inch = 26 $\frac{1}{2}$ Miles
Miles 20 30 40 50 Miles



REFERENCE.

- Concentration of stores at the central depôts of Bujnurd and Shirvan.
- Transport of stores from supply depôts in Persian territory to Gok-Tapa and Ashkhabad.
- Supply depôts in Russian territory.

L. R., March 1885.
Exd. J. A. A.



is ready to go into Khurássán, it must be foreseen that the Cabinet of London will also not delay to send Napier again to Mashad."

"Up till now," replied Zinóvieff, "I am not aware of the objects of the mission entrusted in 1878 to Captain Napier, but I cannot conceal from you that the prolonged stay of this officer on the frontiers of Akhál and the numerous attempts made by him to open up relations with the inhabitants of this country have not increased our confidence in his intentions. Colonel Grodekoff's mission is quite another matter. There is nothing secret in his instructions. His object is clearly defined, and this officer is to limit himself to visiting places which can furnish supplies for our troops. Besides, the relations between Russia and England have considerably changed since 1878, and the mistrust of one another, which prevailed at that time, has since then disappeared."

Thomson confined himself to replying that he did not think it possible to express an opinion on the communality of these ideas, the importance of which could only be rightly judged by the British Government.*

In consequence of all these circumstances, it was only on the 6th (18th) September that the Ambassador permitted Colonel Grodekoff to proceed to Sháh-Rud.† Here he received from Zinóvieff three identical and original *firmands* from the Sháh to the *Ilkhánis* of Bujnurd and Kuchán and the Governor of Daragaz, and instructions as to his duties.

The *firmands*, dated 12th Shawal 1297 [6th (18th) September 1880], ran as follows: "According to the representations of the Imperial Russian Embassy presented to us by the Minister of Foreign Affairs, a certain quantity of supplies is required for the Russian army, for the purchase and transport of which certain people have been sent. As we have always been careful to fulfil the obligations of the entire friendship subsisting between the two empires, by this *firmand* we order you to permit the purchase of supplies and their transport in such quantity as may not affect the dearth of provisions or hurt the inhabitants of the country, and you are not on this occasion to refuse your aid or co-operation. Finally you are to fulfil the above orders in a proper manner, and you will consider them binding on you."

In his instructions, the Ambassador required Colonel Grodekoff to avoid, as far as possible, everything which might remind the Persian Government of his military position or awaken its suspicions. He thought it necessary that Colonel Grodekoff should go to Mashad to make the acquaintance of Prince Rukn-ud-Daula who was ruler of the whole of Khurássán, and to whom the Sháh had sent a telegram requiring him to render assistance according to the spirit of the *firmands*. He advised him to avoid too close relations with the *Ilkhánis*, so as to give the Persian Government no cause to think that we had any special objects in view, and to abstain from everything which might give the Persians cause to suppose that he had any other instructions such as the collection of information which did not bear directly on the main object of his mission, road-sketches, &c. The distribution of presents to the *Ilkhánis* and other officials was necessary to bind them to hearty co-operation, but there should not be too great liberality in this matter. In taking advantage of the co-operation of the *Ilkhánis* and other Persian Governors, it was not proper to put the whole furnishing of supplies into their hands as they might easily abuse this power for their personal enrichment.

* Despatch from Zinóvieff, No. 74, dated 16th (28th) September 1880.—*Author*.

† Telegram from Zinóvieff to Colonel Grodekoff, dated 6th (18th) September 1880.—*Author*.

It was better to keep the management of this in our own hands, buy provisions direct, and settle accounts with the furnishers. The co-operation of the *Ikhánis*, as far as did not concern their own immediate domains, was to be chiefly of a moral nature. On arrival at a place, the quantity of provisions to be bought should not at first be made known, but it was better to let it be known little by little, so as not to cause a quick and excessive rise in prices, such as the Persians were prone to bring about. In commercial dealings with strangers, the Persians usually show great greed, and therefore it was best to make arrangements through local agents who could be chosen from the most trustworthy natives or from Russian subjects. "This is a completely new work," wrote the Ambassador to Colonel Grodekoff, "and as everything which is new meets with difficulties in the East, we must expect to experience such now. But your experience, your acquaintance with the Mussulmán East, and your energy have long been known to me, and I think that they are the best guarantees of success."*

In informing Colonel Grodekoff of his conversation with Thomson, Zinóvieff added: "We must try to buy the supplies we require with the least possible delay. If Captain Napier is still on duty, he will do all he can to hinder us."†

Our commercial agent at Mashad, College-Councillor Nasirbekoff, received from the Ambassador orders to use every exertion to facilitate the execution of Colonel Grodekoff's mission. His instructions were on no account to communicate Grodekoff's position and rank to the Persian authorities, as the latter were to regard him as a person enjoying the full confidence of the Commander of the Expedition, and therefore entrusted with a certain mission. Under these conditions there was no necessity for demanding at meetings or visits the performance of all those ceremonies observed in Persia with regard to people in official positions; but all the same it was very desirable that the officials should give Colonel Grodekoff a very flattering and impressive reception both at Mashad and in the other towns of Khurássán which he visited. If Colonel Grodekoff required an agent to assist him in his purchases, Nasirbekoff was to find such an one from among the Russian subjects living in Khurássán or from among trustworthy natives.‡

On receiving his instructions from the Ambassador, Colonel Grodekoff at once proceeded to buy provisions at Sháh-Rud and set to work in the following manner. The quantity of flour to be obtained was 6,400 cwt., a quantity which it was impossible to obtain all at once within a small rayon. In Persia there are no stores of flour, and therefore wheat has to be bought and ground. There are, however, few mills, and these are of such small size, that the grinding of 6,400 cwt. of flour in the mills of Bujnurd and Kuchán would have required several months. It was therefore necessary to purchase flour over a large area at Mashad, Nishapur, Sabzawár, Juvain, Kuchán, Bujnurd, and even at Sháh-Rud. By taking up this large area, we might hope to avoid the dangers which were represented in the text of the *firman*s being realized, viz., only "to permit the purchase of supplies and their transport in such quantity as may not affect the dearness of provisions or hurt the inhabitants of the country."

* Letter from Zinóvieff to Colonel Grodekoff, No. 453, dated 8th (20th) September 1880.—*Author*.

† Letter from Zinóvieff to Colonel Grodekoff, No. 462, dated 11th (23rd) September 1880.—*Author*.

‡ Instructions from the Ambassador to Nasirbekoff, No. 452, dated 8th (20th) September 1880.—*Author*.

The Ambassador had nothing to say against this, and, according to Colonel Grodekoff's request, gave him permission to order Nasirbekoff to obtain 3,200 to 4,503 cwt. of flour at Mashad.*

After sending agents to Nishapur, Sabzawár, and Juvain, and ordering part of the flour from Armenians at Sháh-Rud, and sending some of his money to Mashad, Grodekoff and his companions, all in plain clothes, left Sháh-Rud on the 16th (28th) September for Bujnurd, having sent the *gendarmes* and part of the Cossacks back to Chikishliár at the request of the Ambassador. Marching by Jajarm and Sankhast on the 22nd September (4th October) the mission reached Bujnurd, and on the same day Colonel Grodekoff was received by the *Ilkháni*, Yár-Muhammad-Khán.

The northern part of Khurássán towards Turán is peopled by Kurds of the Shaddellu tribes (10,000 houses) in the *viláyat* of Bujnurd and of the Zafaránlu tribe (40,000 houses) in that of Kuchán, and by different Kurd and Turki races at Daragaz and Kalát.

The Kurds were settled on the Turán frontier under Sháh Ismail of the Sefid dynasty. Up to this time Irán had been defended from the barbarians by a stone wall, the remains of which are to this day visible between the Atrak and Gurgán, in the Akhál-Tekke *oasis* at Gávárs, and at 26 *versets* (17½ miles) north of Kaakhka on the dry canal of Torli-Yáb.† This wall ran from Gumish-Tapa (the Silver Hill) on the south-east coast of the Caspian to Herát, and was called on the Gurgán *Kizil-Alan* and by the Tekkes *Set-Iskandar*. Tradition attributes its construction to Iskandar Zulkarnain (Alexander of Macedon), although its real constructor was Naushirwán. Having settled the Kurds on the northern frontier of Irán, Sháh Ismail said: "Naushirwán built the Kizil-Alan, but I have built a wall of men. Let us see which will prove the stronger." This was the beginning of the war between the Kurds and Turanians which only ceased in 1881 with the capture of Gok-Tapa and our establishment in the Akhál-Tekke *oasis*.

The Kurds are ruled by *Ilkhánis* of one and the same family, so that this office is hereditary, the Sháh choosing one or other member of the family and appointing him *Ilkháni*. The Teherán Government has several times appointed some of its own officials to be rulers in the Kurd provinces, but this has each time caused a rebellion among the people who demanded rulers of their own race. The Kurds look upon the dynasty of the Kájars which rules in Persia as a power foreign to them, and strongly support their hereditary *Ilkhánis*, who are more in the position of vassals in their relations with the Central Government. The Government of Teherán has influence over the *Ilkhánis* themselves, but a direct and immediate participation in the Government of the Kurds it has not and never has had. In consequence of this the relations between the *Ilkhánis* and the local population are much closer than in the other provinces of Persia.

Of late years, the Persian Government, finding this state of matters not in conformity with its interests, tried to deprive the *Ilkhánis* of their privileged position and reduce them to the level of ordinary Governors. This was about the time that our troops began their reconnaissances in Trans-Caspia, and established themselves firmly at Chikishliár. Teherán evidently saw that this would lead to something. When the Russians had established themselves to the north of Khurássán, there would be no necessity for

* Letter from the Ambassador to Colonel Grodekoff, No. 458, dated 11th (23rd) September.—*Author*.

† At the latter place, Lieutenant Alikiánoff saw the ruins of the wall, which is 9 feet thick at the base and somewhat less in height.—*Author*.

the *Ilkhánis* and their Kurds who hitherto had formed the bulwark of Irán against the Turanians, and therefore the Persian Government began to try to get them under its power. With this view it began to follow their actions closely and to pick quarrels with them. Thus, when in 1879 Mirza Khánlar-Khán was sent into the Kurdish provinces at the request of our Ambassador to co-operate with our agents in obtaining supplies for the troops, he had secret orders to observe the *Ilkhánis*, especially Yár-Muhammad-Khán, and see whether in the changed condition of their lives on the northern frontier of Khurássán they had any intentions of acknowledging the supremacy of the Russians in consequence of the occupation by the latter of the Akhál-Tekke *oasis*. When a notorious brigand, named Kulchán, plundered two merchants on the great Mashad road in the same year and carried off 2,000 *tománs*, and when on enquiry it appeared that his band had passed through the territory of Bujnurd, a fine of 8,000 *tománs* was imposed on Yár-Muhammad-Khán, to pay which, according to his own words, he had to sell several family jewels. When too the ruler of Kuchán was at Teherán on private business in 1880, the Persian officials plundered him fearlessly and at the same time did not fulfil one of his requests.

The *Ilkhánis* on their part felt that, with the conquest of Akhál-Tekke by the Russians, their importance as guardians of the Empire would be gone; and thinking that, after that, the Persian Government would make short work then, they were very adverse to our advance. In former times it had been dangerous for the Sháh to interfere with the *Ilkhánis*, because, firstly, they had the people with them; and, secondly, they could call in the Tekkes to their assistance as they had done several times before. There was another cause why the *Ilkhánis* were hostile to our advance, and that was the question of money. The *Ilkhánis*, who had been placed on the frontier to guard it, did not confine themselves to a passive defence, but often undertook campaigns into Akhál, plundered the Tekkes, and carried off many prisoners. Such raids were lucrative matters, both for the *Ilkhánis* themselves and for their men. The former received one-fifth of the booty, including prisoners, whom they usually took in charge until ransomed. Fetters were placed on their feet, hands, and necks, and they were put into a tower, while the *Ilkháni* quietly awaited the negotiations for their ransom. Their keep cost hardly anything, and therefore the *Ilkhánis* did not hurry on the negotiations, but rather let them drag out, so that more money might be obtained. The amount of the ransom depended upon the position the prisoner had held in his own country, but it was hardly ever less than 100 *tománs* (300 *roubles*), and sometimes went up to 1,000. Yár-Muhammad-Khán told Colonel Grodekoff that he had in his tower a retainer of Nur-Verdi-Khán, a man 60 years old, on whom he had placed a ransom of 1,000 *tománs*, and that he would not abate it one *krán*, however long he remained there.*

The military caste who, like the *Ilkhánis*, drew profit from the *alamáns*, were also very much against our conquest of Akhál.

As for the unarmed class of peaceful settlers, traders, and shopkeepers, especially in the border villages most exposed to the Tekke raids, they, on the contrary, looked upon the Russians as deliverers and sincerely prayed for the success of the Russian arms and the establishment of their rule. The author was a witness of tearful prayers in the mosques of Shirwán for victory for our arms, when the inhabitants heard the fully-confirmed rumour of the

* After the capture of Gok-Tapa, Yár-Muhammad-Khán had to set him free without payment.—*Author*.

pillaging by the Tekkes of a caravan from Bujnurd on the 7th (19th) October, on which occasion 50 men were killed or carried off into captivity.

The Kurds occupy small villages in the valleys of the hills, all of which, as well as their towns, are surrounded by high walls with towers, and on their fields and in their gardens are towers, to which the people could flee on the approach of bandits suddenly. Each Kurd village had its *Sirdâr* or headman, who led the villagers on their forays against the Tekkes. Against raids across the Tekke frontier, a complete system of guards had been organized on the main routes of approach; but these guards were insufficient to afford protection against the *Kaltamâns*, or raids of small parties, which annoyed the Kurds most of all, because there was no means of guarding against them. The Kurds immortalized the favourite places of those petty raiders by such names as *Tekmirân*, which signifies "Don't go alone."* The position of the Kurds was thus insupportable. The Kurd is a Shiâh, or an unclean one. Although by law every Mussulmân is free, the Shiâh, who is debarred from community with the Islâm of the followers of the Sunni belief, may be sold into slavery. The Mussulmân *servants* of Bukhâra, Sâmârkand, and Herât of the 16th century looked with scorn on the Shiâhs as not being Muhammadans, permitted their public sale as slaves, and considered intermarriage with them as *mekruk*h, i.e., vile, abominable.†

The second reason why the common people sympathized with the Russians was the burden of the excessive taxes and contributions laid upon them. The people felt that, with the arrival of the Russians in Akhâl-Tekke, their position would be improved, or a way out of their troubles could be found by migrating in to Russian territory. Especially heavily burdened were the inhabitants of the *vilâyat* of Kuchân by their *Ilkhâni*, Amir-Hussain-Khân-Shuja-ud-Daula. From the *vilâyat* of Kuchân taxes were raised, according to a census made 35 years ago to the following extent:—

			Wheat.		Money.	
			<i>Kharvars.</i>	<i>Batmâns.</i>	<i>Tomâns.</i>	<i>Krâns.</i>
From the town of	Kuchân	...	...	...	2,000	...
"	" Sar <i>vilâyat</i> and Chinarân	...	1,345	95	6,637	9
"	" Mîân <i>vilâyat</i>	...	2,274	55	8,651	...
"	" Poin- <i>vilâyat</i> and Shirwân	...	810	60	5,739	...
"	" Kenkanli Jiristân	...	617	...	2,049	...
"	" Kushkhâna	...	573	...	1,592	...
"	village of Firûza	...	...	...	1,500	...
"	" Kifân	...	...	...	350	...
"	" Garmâb	...	...	...	400	...
"	" Gulgulau	...	...	...	150	...
Total			5,621	10	29,068	9

The cultivated lands belonging to Shuja-ud-Daula himself alone brought him a revenue of 9,330 *kharvars* of wheat, and his gardens yielded him 500 *tomâns*' worth of produce.

Converting the grain into money, the total revenue of the *Ilkhâni* could not be far short of 60,000 *tomâns*, i.e., 180,000 silver roubles. With a population of 200,000 souls, this gives 90 *kopecks* a head, a small sum according to our ideas, but a huge one there, where there is no sale or export trade, and where a workman receives 15 *kopecks* a day. Latterly, when Shuja-ud-Daula

* *tek* in Turki means "one" or "alone"; *mirân* in Persian means "do not go."—*Author*.

† The chief author of this fatal edict against the Shiâhs was the famous lawyer-priest Shuja-ud-Din Herâti.—*History of Bukhâra or Trans-Oxania*, by A. Vâmbéry, Part I.—*Author*.

had spent much money on the officials at Teherán, had been punished with a fine of 25,000 *tománs*, and had acquired a taste for European wines, truffles, and other gastronomic delicacies, he felt the want of money and began to cast about for new means of raising it. In the bazaars of Kuchán might then be seen sheep's carcasses, with red seals upon them—a sign that a tax had been laid upon meat!

Taxes are arranged in the *vildyat* of Bujnurd according to the following system:—

- | | Rouble. | Kopecks. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------|
| (1) From a <i>juft</i> , i.e., from the amount of land that could be ploughed by one plough and sown with wheat or barley, 2 <i>kharvars</i> (148·8 lbs.), equal to a tax of | 1 | ... |
| <i>Saman</i> , 4 loads | ... | 80 |
| <i>Bazl-chark</i> (from threshing) | 1 | ... |
| Payment for transport for each <i>kharvar</i> subject to duty | 1 | 50 |
| (2) From each family:—100 bundles of lucerne | ... | 30 |
| 1 load of firewood | ... | 15 |
| Capitation tax | 3 | 0 |
| For hire of watchman for fields | ... | 30 |
| | | and 5 <i>batmáns</i> of wheat. |
| (3) For 1,000 vine-plants, 1½ <i>roubles</i> . Other fruit trees are paid for at the same comparative rate, i.e., according to the income they brought, as vines. | | |
| (4) For cattle:—Per cow, 50 <i>kopecks</i> ; per mare, 1 <i>rouble</i> ; and per sheep or ram, 15 <i>kopecks</i> . In addition to these, an extra tax (<i>alafchar</i>) is put on sheep, 1½ <i>roubles</i> per 100 animals. There is no tax on pack animals or riding horses. | | |
| (5) <i>Yag-Toglu</i> , a tax of 120 lamb skins and 120 <i>batmáns</i> of oil from every 250 houses. | | |
| (6) From new arrivals, not of Shaddelu extraction, is raised, at the expiration of five years after their first settlement, a tax, according to their condition, which might amount to 1 <i>tomán</i> per family. | | |

The *Yag-Toglu* is raised upon a computation made long ago, but the other taxes are raised upon a census made every 10 years.

All these taxes yield 16,000 or 17,000 *tománs* a year (about 50,000 *roubles*).

To the *Ilkháni* of Bujnurd, in addition to the Shaddelu Kurds, are also subject the Goklán Turkumáns, occupying, to the number of 6,000 *kibitkas*, the fertile strip of land between the upper course of the Atrak and of the Gurgán. They engage in cattle rearing, silk manufacture, and the cultivation of rice, which has a sale not only in the *vildyat* of Bujnurd but also in that of Kuchán, at Mashad, Sabzawár, and Nishapur. From them, 11,000 *tománs* are raised by the *Ilkháni*, of which 6,000 are paid to the Governor of Astrábad for keeping up the administration, and 5,000 remain for his own use.*

Thus, including his gains from raiding, the revenue of the *Ilkháni* of Bujnurd amounted to from 65,000 to 70,000 *tománs*. The *Ilkhánis* gave no account of the expenditure of the taxes paid in to them for Government, but were bound to guard the frontier of the Empire, keeping up a horse and foot militia and guards towards Akhál-Tekke.

* The Gokláns pay taxes as follows:—For each *kmedán* (silk-winding actory and silkworm shed), 3 *roubles* 50 *kopecks*, and for each *kismat* of rice crop, 7½ *roubles*. A *kismat* is a space of 20 square reeds, each reed being supposed to be 5 *arshins* (11 feet 8 inches) long. The crop of rice is, minimum, 30 fold, maximum, 100 fold.—Author.

The *Ilkhánis* dispense law and justice in their own name, and all affairs generally are conducted by them in their own name and not in that of the Sháh. The people know the *Ilkháni*; they do not know the Sháh.

The *viláyat* of Bujnurd is divided into the following *julgi* or strips of land separated from one another by mountain ridges:—Mana, Similgán, Shogán, Chahár-Deh, Chinarán, and Bujnurd.

Towards the Tekke *oasis* in the gorges of Incha, Soga, Karai, Miarába-Tapa, Khartut, Jallát-Kala, Zarnya, Ráz, Chil-Guzár, Dásht, Imámdarási, &c., there lived 150 years ago the Emrali tribe, but their settlements were abandoned in consequence of Turkumán raids. In October 1879, the *Ilkháni* of Bujnurd received orders from Teherán to settle some people in those deserted localities, if only a few families in each. These orders were evidently given with a view to opposing any claims we might make upon these localities when the time came for the rectification of the frontier. Orders with the same object in view were also given to the *Ilkháni* to take various measures to keep the people of Kari-Kala on the Gurgán, and to prevent them from again removing to Kari-Kala. Yár-Muhammad-Khán did not, however, succeed in carrying any of these orders into execution.

The Staff of the Temporary Commander of the troops was in possession of information furnished by Tairoff to the effect that in the *viláyat* of Bujnurd 16,000 cwt. of wheat and barley could be obtained, in that of Kuchán 35,400 cwt., and in Daragaz not more than 12,800 cwt. of those products. The information gathered by Napier on the northern frontier of Khurássán in 1878 was also known to the Staff, and in it the quantity of wheat and barley, which could be collected for the Russian troops, was only placed at 12,800 cwt.

Tairoff had thus estimated the means of transport on which we could count in Khurássán:—At Bujnurd 200 camels and 400 horses, mules and asses, in Kuchán 100 camels and 500 horses, mules and asses, at Mashad 200 camels and 600 mules and horses, at Sabzawár 300 camels, at Sháh-Rud 300 mules and horses, and at Astrábád 50 mules, total 800 camels and about 2,000 horses, mules, and asses, giving a carrying power of 5,440 to 6,400 cwt.*

At this time, the hereditary *Ilkháni* of the province of Bujnurd was Yár-Muhammad-Khán, a man of about 45 years of age. He was an old warrior, who had seen many changes of fortune. In his youth, under Sugám-ud-Daula, *Ilkháni* of Bujnurd, he had commanded the mounted militia of the Similgán *julgi*, and had gained renown as a brave warrior and received from the Shaddelu Kurds the surname of *Klijli*, that is, “the wielder of the sword.” He had taken part in the unfortunate campaign of the Kurds against Níáz-Tapa (near Bámi), where they sustained a heavy defeat and lost many killed and prisoners. He had also served in the unsuccessful operations of the Persian Government troops against the Goklán fortress of Kari-Kala. He, however, defeated the Tekkes with great slaughter at Chilguzár on the Atrak,† and Sháh Nasr-ud-Din, on receiving news of this victory, at once sent a *fírmán* to Yár-Muhammad-Khán, appointing him *Ilkháni* of Bujnurd.‡

On the Tekke raids beginning to diminish in number in 1873, Yár-Muhammad-Khán began to mount his horse less frequently, but occupied himself with administration and the education of his sons, which he entrusted to an Egyptian. He now began to provide for all eventualities and to amass money,

* Notes by Yákhia-Bek-Tairoff.—*Author*.

† See Chapter VII.—*Author*.

‡ In December 1880 he received the title of *Sugám-ud-Daula*, i.e., “The sharpest arrow of the Empire.”—*Author*.

fearing for his future. He did not remit one *krán* of the taxes of his subjects and never let an occasion slip of wringing all he could out of them. When dispensing justice, he frequently condemned both parties to pay a fine for his own benefit. Nevertheless, the people, remembering his military services and seeing that, at the least sign of danger from the Tekkes, Yár-Muhammad-Khán would mount his horse once more to defend them, forgave him much, and said: "Where the hearth of the *Ilkháni* is, there also will his people be."

Like the majority of Persian courtiers, he was much given to spirituous liquors and even kept a small distillery for his own use.

From conversations with Yár-Muhammad-Khán and his near surroundings, Colonel Grodekoff saw that it was impossible to fulfil the Ambassador's instructions as to not putting the furnishing of supplies completely into the hands of the *Ilkháni*, and that without him it was impossible to do anything. *Firstly*, because he was a merchant and wished to sell his corn dear, although he did not say so personally; and, *secondly*, because without his permission nobody dared to sell grain. Having given presents to the people in the *Ilkháni's* immediate *entourage*, and afterwards presented a few costly things to Yár-Muhammad-Khán himself, Colonel Grodekoff succeeded in inducing him to take a close and sincere interest in our affairs. The *Ilkháni* himself and his highest officials, Mirza-Agaján, his secretary; Aga-Mirza, superintendent of the *Ilkháni's* cattle, and the *Parrásh-Báshi* of Bujnurd, promised to hand over to us at Bujnurd within a month, *i.e.*, by the 25th October (6th November) 600 *kharvars** (4,363·2 cwt.) of flour at 28 $\frac{1}{2}$ *kráns*† a *kharvar*, and 1,400 *kharvars* (10,180·8 cwt.) of barley at 25 *kráns* per *kharvar*.

Having sent agents to Isfarain and Mianábád to buy flour, and leaving Tairoff at Bujnurd to receive the supplies which were to arrive from Sháh-Rud, Sankhast, Sabzawár, Mianábád, and Isfarain, and also from the *Ilkháni* and his officials, Colonel Grodekoff with the rest of his party left for Shirván. Here, at that time, Amir-Hussain-Khán-Shuja-ud-Daula, *Ilkháni* of Bujnurd, was living and was preparing for a raid on the Tekke settlements according to the wishes of General Skobeleff, communicated to the *Ilkháni* by the Persian Government.‡

On the 27th September (9th October), Colonel Grodekoff arrived at Shirván, and thus reported his relations with the *Ilkháni* to the Commander of the Expedition: "Learning from the Bujnurd horsemen who accompanied me that *Ilkháni* Yár-Muhammad-Khán had visited me, and that any kindness on his part would be acceptable to the Russian Government, Amir-Hussain-Khán paid me a visit first. Knowing that he was fond of liquor, we placed several bottles of wine, liquors, and *vódka* before him, and in a very short space of time Shuja-ud-Daula had drunk several glasses of different wines, and then called in his singers and musicians. The men who came with him, his surgeon who rejoices in the high-sounding title of "Chief of Doctors," and his favourites, Vali-Khán and Ramazan-Khán, drank themselves stupid, and a regular orgie began. Next day I went to the Amir and presented my documents to him. Before him bottles were already standing, and he explained that he was recovering from his intoxication. During our conversation, he repeatedly partook of brandy, opium, *hashish*, and wine, and by noon was quite drunk. In the evening of the same day he invited us to a European supper and again got intoxicated to the last degree."

* A Bujnurd *kharvar* = 820·3 lbs. English weight.—*Author*.

† A *krán* = 30 copper *kopecks*.—*Author*.

‡ See Chapter XIV.—*Author*.

"On the 29th September (11th October), he invited us to hunt with falcons at Kara-Kazán, otherwise called *Chashma-i-Atrak*, the eye of the Atrak, for here, according to him, that river rises. Kara-Kazán is about 5 *versts* (3½ miles) from Shirván. I drove with the Amir in a covered carriage, about 100 horsemen on valuable horses, with their appointments mounted with silver and gold, accompanying us. We took three hours to do the 5 *versts* (3½ miles), as every minute we stopped to smoke a *kalán*, or to drink tea, coffee, *vódka*, or wine. At the source of the Atrak, splendid tents were set up, and on reaching them, drinking was again begun."

"The sport was carried on as follows: at 800 paces from the tent a ram was tied up and we all began to fire at it, first the Amir, then I, Krishtopenko, Erdeli, the Staff, and finally the cavalry. About 200 shots were fired at it from rifles of different systems, including some of our Berdás, which had been sold to the Amir by the Tekkes. One bullet hit the animal in the neck, but he still remained standing. After that tame pigeons were let loose, and falcons set on to chase them. Some of the former took refuge in the tents, but they were driven out of these, and then fell a prey to their pursuers. Shuja-ud-Daula was in his element; he ran about, shouted, waived his hands, and swore, this form of the chase being, next to drinking, his favourite pursuit. After that came dinner, which was succeeded by another drinking-bout. The Amir was in high spirits and, taking fruit in his hands, pressed it into a mess and gave it to his companions. We prayed God that we might be passed over, and luckily it so happened."

"It must be remarked that the agent sent by me to Shirván two days before my departure from Bujnurd was able to obtain nothing, as the Amir had forbidden his subjects to sell us grain, and that on the 28th September (10th October) Shuja-ud-Daula said he would talk with me about our business when we went hunting. I tried several times to introduce the subject, but he answered nothing. During our dinner Erdeli said to me: "We have gone hunting and have heard music for two days and have eaten messes, but our magazines are as yet only projected." After dinner I pressed the Amir for a decisive answer; and he, already quite drunk, promised me at last to sell me 3,000 *kharvars*. Although on the occupation of Akhál by the Russians, half his *viláyat*, he said, *i.e.*, the country to the north of the Atrak, would be taken away from him, still he, the Amir, was ready to serve us with his whole heart, because the half which remained to him, and Shirván especially, would gain much from trade with us. He, the Amir, knew very well that the Atrak would be the Russian frontier, and therefore he desired to show us the source of the river. While he was at Teherán, he had pointed out to the Sháh how painfully the roar of Russian guns before Gok-Tapa would sound to Persian ears, and therefore he had proposed to conquer Akhál with his Zafranlu; but his services had been refused. He now looked upon the occupation of Akhál by the Russians as a *fait accompli*, had reconciled himself to it, and would do all he could to help us. He would give us grain, transport, cattle, horsemen, and finally he would be himself at our service. "Your troops will receive a hot *pilau* from Garmáb," he ended in a drunken manner. I proposed to him the same prices as had been given at Bujnurd, *viz.*, 25 *kráns* a *kharvar* for barley and 29 *kráns* a *kharvar* for flour, upon which Shuja-ud-Daula replied that he was not a merchant and would be content with whatever we might give. Further, he proposed to present to the army 300 *kharvars*, and then let us have 3,000 more; but I said to him that the troops of the White Tsár required no presents, not even from such a great man as the Amir-ul-Umra.* He,

* Amir of Amirs, one of the titles belonging to the *Ilkháni* of Kuchán.—*Author*.

however, replied: "You explain that to General Skobeleff with the white face."

"From our excursion we returned to the town at twilight, our return being as slow and with as many stoppages to smoke *kaláns* and drink tea, coffee, *vódka*, &c., as our drive out to Kara-Kazán. Having been plagued with this drunken crew all day, we thought we should be allowed to return home, but to our horror we heard the Amir give orders that he intended to pass the evening with the *Sáhib*, i.e., with me. Again took place the same drinking, dancing of *farráshes*, &c., &c. Although the Amir was drunk, he never lost his reason. Thus, when he saw that our Turkumán, Aba-Mulla, was a spectator of the orgie, the *Ilkháni* ordered him to be turned out."

A three days' sojourn in the society of Shuja-ud-Daula had shewed Colonel Grodekoff and his assistants that the Amir was very much in possession of all his faculties; that he was not to be deceived by our giving ourselves out as commercial agents; and that, although he was a drunkard, still he saw and remembered everything.

Amir-ul-Umra Hussain-Khán, *Ilkháni* of Kuchán, who received from the Sháh the title of *Shuja-ud-Daula*, i.e., "Boldness of the Empire" was born in 1840, and was therefore at that time 40 years old, but his very dissipated life (drunkenness, opium-smoking, &c.) made him look much older. In his youth he had taken part in the campaign against Herát, in which he was wounded, and in the relief of Annau when it was blockaded by the Tekkes, in which he played a foremost part. An uncommonly intelligent and capable man with a completely European understanding, he, when sober, was a very pleasant companion and a man of varied views. A despot, who cut off the noses and ears of his subjects; he was hated by his people. "There is your bread, salt, and *zakuska*,* and there is a pleasant companion," he said to his son, Abdul-Hassan-Khán, who had been implicated in a plot against him as he ordered bread, salt, a man's wrist (as *zakuska*) and the corpse of one of his associates to be placed before him. All his energy was turned towards wringing out and gathering money to fill his treasury. It was only necessary to tell him that a certain person had received money or had ordered some costly thing to set him on to annoy the man and wring out of him what he required. In July 1880, the Commander of the Expedition sent a table-clock to Háji-Muhammad-Beg, headman of the village of Gulgulau, as a reward for having given refuge to and sent to Duz-Olum a trooper of the Daghistán Irregular Cavalry Regiment, who had been taken prisoner by the Tekkes in 1879, and had escaped in June from Gok-Tapa. Shuja-ud-Daula, hearing of this clock, laid a fine of 500 *tománs* on Háji-Muhammad-Beg, took away the clock, gave him 100 stripes, and imprisoned him in a tower. Notwithstanding that Shuja-ud-Daula had once said to Tairoff (a Mussulmán) that the Russians, who did not wash five times a day, or dye their beards, and used beef as food, were like wild beasts, he annoyed all the priests, who are all powerful in Persia, in his *vildyat* by his drunkenness.

Of all the vassal rulers of Persia, he was the most important, both from the number of his subjects and from his riches. There was a time when he refused to obey the Sháh's *firmáns*, and would not yield to the Vali of Mashad who brought troops against him; but afterwards he made his peace and was able to pay into the Sháh's treasury the huge fine of 25,000 *tománs* (75,000 *roubles*). Once he was even deposed and sent as a prisoner to Teherán, and

* *Zakuska* is the relish taken by Russians before dinner, such as caviare, herring, or sardines, with a glass of liqueur.—J. M. G.

his son, Abdul-Hassan-Khán, made *Ilkháni* in his stead. Now, however, he had taken to drinking, and, like all drunkards, had become a coward. He requested Colonel Grodekoff to tell Prince Rukn-ud-Daula that he had sold us only 1,000 (instead of 3,000) *kharvars*; afterwards he was very anxious to know whether flour was being sent to us from Mashad. In general, the former Shuja-ud-Daula was quite changed, and he now only looked to Mashad and to Teherán.

After his visit to Teherán in 1880, where he had kept up relations with Zinóvieff, he returned home with a deep impression of how much the Persian officials had wrung out of him, and how shamelessly they had done it, and after that he fulfilled none of their demands.

On the 30th September (12th October), when the written documents came to be made out, the Amir's Agents made the following conditions:—The Amir would deliver to us within a month at Shirván 1,700 *kharvars** (9,792 cwt.) of flour and 800 *kharvars* (4,608 cwt.) of barley at 30 *kráns* a *kharvar*, and at Takhti-i-Rabát (near Garmáb) 250 *kharvars* (1,440 cwt.) of flour and the same number of *kharvars* of barley, at 33 *kráns* a *kharvar*. Thus, in addition to the price being much higher than at Bujnurd, we also lost 170·5 lbs. weight on every *kharvar*. Having ratified these conditions in the morning, and given Colonel Grodekoff *beráts* to receive the grain, in the evening Shuja-ud-Daula said to him that he could not furnish flour to us at Takht-i-Rabát, as there were no mills there, and therefore Colonel Grodekoff must receive the wheat. To all this we had to consent, for complaints to Shuja-ud-Daula only made our position more difficult and in no way bettered it. In a word, one way or another we had to agree with him. Not sympathizing at all with our Expedition, which he took no pains to conceal, and having laid before Colonel Grodekoff the losses which he would suffer by the occupation of Akhál by the Russians as the raids would cease, and he would gain nothing by the sale of prisoners, he had determined to recoup himself by the sale of his grain to us and afterwards by furnishing us with transport for this grain to our magazines in the *oasis*.

Having settled matters with Shuja-ud-Daula and leaving *Foiskovói-Star-shina* Diakoff at Shirván to receive supplies and form a magazine, Colonel Grodekoff, following out the Ambassador's instructions to enter into close relations with the Viceroy of Khurássán, left for Mashad.

On the way to this place, Colonel Grodekoff met at Kuchán a young man who had been recommended to him, Carl Defour, a Dutch subject, but a native of Russia, who two years before had been forced to leave his country for causes which he did not think it necessary to mention. Having adopted the Mussulmán religion and the name of Ali-Islám, he had for some time been Russian tutor to the son of Prince Rukn-ud-Daula; but when his pupil married, he had lost his place and settled at Kuchán, awaiting a post which Shuja-ud-Daula had promised to try and obtain for him at Teherán. In proof of this, he shewed Colonel Grodekoff his foreign passport issued by the Governor of Baku on the 4th (16th October) 1878, in which it was stated that—

"The bearer of this, Carl Defour, a Dutch subject, is proceeding to the Persian (?) town of Kandahar for 6 months, on business matters." This passport had not been shewn at the frontier Custom-house.

Seeing in Defour a bold young man, well acquainted with Asiatic languages, Colonel Grodekoff proposed to him to go to Daragaz and thence find out what was going on among the Akhál-Tekkes and at Marv, and Defour consented. He was promised pay at the rate of 50 *tománs* a month, and then

* The Tabriz or Imperial *kharvar*, weighing 649·8 lbs. English.—*Author*.

left for Muhammadábád, whence he sent his reports to Colonel Grodekoff to Shirván.* To give him some apparent cause for living at Daragaz, so as to avoid the suspicion of the Persian authorities, Colonel Grodekoff authorized him to order rice for our troops.

Thus, in a very short time, all Khurássán was covered with a net-work of Russian agencies. These were at Mashad, Níshapur, Sabzawár, Sháh-Rud, Juvain, Sankhast, Isfarain, Mianábád, Bujuurd, Similgán, Kuchán, and Muhammadábád (in Daragaz). The agents were mostly Russian Tatars or Persians, and they received a pay of 5 *kráns* ($1\frac{1}{2}$ *roubles*) a day and 5 *kopecks* for each *pud* of supplies delivered by them into the magazine, besides all their extraordinary expenditure being repaid them on presentation of their accounts. At the above-mentioned points, the following quantity of supplies was ordered :—

					<i>Flour.</i>	<i>Barley.</i>
					cwt.	cwt.
Sankhast	...	...	...	...	352	352
Bujnurd	...	...	...	...	4,224	9,856
Sháh-Rud	...	...	...	...	144	...
Sabzawár	...	...	...	...	633·6	...
Shirván	...	...	...	...	9,792	4,608
Mashad	...	...	...	...	4,608	...
Nishapur	...	...	...	...	1,152	...
Takhta-i-Rabát	...	...	...	...	1,440	1,440
Total	...	...	...	...	22,345·6	16,256

It was impossible, however, to say whether the whole quantity ordered at any one place would be delivered.

Although 5,344 cwt. less of barley had been ordered than the total quantity prescribed by General Skobelev, Colonel Grodekoff counted on receiving the full amount 21,600 cwt. The question of flour disquieted him more; for, if he confined himself to ordering the quantity required, 6,400 cwt., it might happen that, if the contractors did not fulfil their promises, we might receive less than we required. Colonel Grodekoff therefore ordered three times as much as was wanted, and thus obtained a guarantee against the total being short. It so happened, however, that most of them fulfilled their contracts.

Colonel Grodekoff arrived at Mashad on the 4th (16th) October, and next day was most graciously received by Prince Rukn-ud-Daula, to whom he gave some valuable presents.

It must be remarked that Mashad was not one of the places in which the Persian Government had at first given us permission to buy supplies. Although Colonel Grodekoff had informed the Ambassador from Sháh-Rud of his proposal to extend the sphere of his operations to Mashad, still, so as not to frighten the Persian Government with the possibility of a general rise of prices of provisions all over Khurássán, Zinóvieff thought it better not to demand additional orders at once but to wait till they were required.

Nasirbekoff, on receiving his orders from Colonel Grodekoff from Sháh-Rud, had at once set about carrying them out. He did not think it possible to buy flour openly in the town or in its environs, in view of the peculiar conditions of life at Mashad as compared with those in other Persian towns. Here people seldom store up grain for the whole year, but most of them, including the Persian troops, buy grain daily in the bazaar whither only as much flour is brought from the environs as is required for the current

* Report from Colonel Grodekoff to Zinóvieff, No. 50, dated 2nd (14th) April 1881, from Askhábad.—*Author*.

consumption of the population. In consequence of this, the purchase of a large quantity of flour for our troops would have entailed a rise in prices and popular discontent.

Although in the province of Mashad the crops had been good, and about the middle of August corn was selling at 18 to 20 *kráns* a *kharvar*, when rumours arrived of the failure of the crops in Yezd, Kirmán and throughout Seistán, and of the purchases of our agents in Kuchán, the price of corn at Mashad went up to 35 *kráns* a *kharvar* and rose higher daily. Nasirbekoff therefore resolved to buy secretly from the stores of the mosque of Imám-Riza 700 *kharvars* of wheat, and to have it ground in the mills of the environs, and in addition to buy 100 *kharvars* of flour.*

Before Colonel Grodekoff's arrival at Mashad, rumours reached Nasirbekoff that the *Saftas* intended to oppose our taking flour out of the town. On a representation being made to Prince Rukn-ud-Daula on the subject of this report, the latter replied to Nasirbekoff that the rumour was not true, and that he might be perfectly at rest. When, however, on the evening of the 5th (17th) October a caravan of 57 camels laden with our flour was leaving the town for Shirván, it was stopped at the gate by order of the Prince.

In expectation of an explanation of the cause of the delay being given, the drivers halted their camels with their loads in the street. Notwithstanding Nasirbekoff's assurance that he would at once procure permission for the camels to depart, Colonel Grodekoff ordered the animals to be at once taken away to the caravan-serai to avoid a disturbance in the morning. Then only did Nasirbekoff tell Colonel Grodekoff of the propositions of the *Saftas*. Up till then, although Nasirbekoff had told Colonel Grodekoff that he had been bribing guards and sending camels out of the city by night,† the latter had not been able to understand why they had been bribed when all were free to depart.

Next day fresh news arrived: Prince Rukn-ud-Daula had bound a local corn-dealer, named Háji-Ghulám-Mirza, to whom Nasirbekoff had trusted for the purchase of 200 more *kharvars* of flour, not to have any further dealings with the latter, and had also forbidden any more of our flour to be ground in the mills in the suburbs.

Thus, the situation was critical. The very arrival of Colonel Grodekoff at Mashad produced a disturbance in the city, and everywhere they said that the "head of the merchants of the Russian Empire" (*Tijir-báshi Daulat-i-Russ*) had come to buy up all the corn.

The English Agent, Abbás-Khán, was not slumbering. He went to the *mushtáids*,‡ and urged them to send a written declaration to the Prince that it was necessary to forbid the Russian flour to leave the city so as to avoid a famine. The clergy in Persia are as powerful as were the Catholic priests under Gregory VII or Innocent III; § but at Mashad, the holy centre of the Shiáh sect, where one of the descendants of the prophet, Imám-Riza, is buried, to adore the grave of whom some 150,000 pilgrims come together, their power

* Letters from Nasirbekoff to Colonel Grodekoff, dated 13th, 19th, and 20th September (25th September and 1st and 2nd October).—*Author*.

† All the town gates of Mashad are closed at sunset and remain closed the whole night. They are opened for nobody.—*Author*.

‡ Judges who can give an answer on any question, theological or legal. There are four of them at Mashad.—*Author*.

§ Even in such a question as the construction of a railway, the Government had to ask the opinion of the *mushtáids* whether its construction would be against the Korán. They gave their consent on condition that at every station there should be a mosque and a cook for Mussulmán.—*Author*.

is boundless. The *mushtails* were very anxious to do a good stroke of business, and in this way the money paid for the wheat belonging to the tomb of Imám-Riza and the wheat itself would thus be secured to them. Notwithstanding his indifference to the purchase of wheat for our troops, the Prince, once the clergy had meddled with it, was stirred up, received the declaration of the *mushtails*, and the result was the orders mentioned above. The *Soflas* went about the town talking loudly about the matter, and Abbás-Khán was triumphant. He sat all day with the Prince and pointed out to him that the Russians had been authorised to buy flour at Kuchán, Daragaz, and Bujnurd, but that they had no right to purchase provisions at Mashad. To fully enjoy his triumph, Abbás-Khán wished personally to see the mortification of Colonel Grodekoff and sent word to Nasirbekoff that he intended to visit his guest, but his visit was declined.

On the evening of the 5th (17th) October, when our camels were stopped at the gate, Nasirbekoff had written a protest to the Prince, but Rukn-ud-Daula was at that time worshipping at the tomb of Imám-Riza and sent no answer. Next day Nasirbekoff sent another letter, to which again no reply was given.

Then Colonel Grodekoff resolved to make use of the powerful means at his disposal to buy over the *mushtails* and give presents to Prince Rukn-ud-Daula. As the latter, through his aide-de-camp, had let it be known that he wished very much to have a *lundau*, Colonel Grodekoff requested Nasirbekoff to inform Rukn-ud-Daula that he would receive one, and then Colonel Grodekoff handed 200 half-Imperials to Nasirbekoff for the mosque of Imám-Riza. The latter at once communicated this to the *mushtails*, who decided with him what use they were to make of this offering. In common council it was decided to buy with 100 of the coins 50 *puds* (16 cwt.) of candles to light up the mosque of Imám-Riza and to divide the other 100 among the *mushtails* for distribution to poor worshippers. At the same time Colonel Grodekoff asked Prince Rukn-ud-Daula for an audience, and Nasirbekoff wrote him a letter, stating categorically how, before his departure to take over the duties of Minister of Foreign Affairs, Mirza-Saiyad-Khán, who was then fulfilling the duties of *Mutavali-Báshi*, knew very well that the wheat bought from the stores belonging to the tomb of Imám-Riza was for the Russian Government, and that it was to be taken out of the town; if the Prince would not let it go, would he return the 10,000 *roubles* paid for it?

Whether gold made steel softer,* or the question propounded by Nasirbekoff appeared unanswerable, whether Zinovieff's persistent demand from the Persian Ministry of Foreign Affairs for the grain purchased to be allowed to go, or whether all the above-mentioned causes had their effect, is not known, but at any rate next day a complete change took place; the camels with flour were allowed to depart, Háji-Ghulám-Mirza was permitted to deal with Nasirbekoff, and police-guards were placed on the mills, where our wheat was being ground, so that nobody, except Russians, should have any grain ground there.

On the 7th (19th) October, at his audience with the Prince, Colonel Grodekoff had already lost all ground of complaint, and thanked Rukn-ud-Daula for all he had done and the orders he had given. He then took leave and next day left for Shirván.

Nevertheless the popular opinion that the Russian flour should not be allowed to leave the town was still maintained even after the Prince's orders. As Nasirbekoff wrote to Colonel Grodekoff, "the whole town is excited with

* An Arab proverb runs:—"Place gold on steel, and the latter will become softer."—*Author*.

the desire not to let the flour leave it." Hájí-Ghulám-Mirza, fearing the anger of the people, shut himself up in the tomb of Imám-Riza, and Nasirbekoff had to turn to the people and remind them how the Russians had set free the Persian prisoners in Turkistán, and how they were even then endeavouring to restore peace on the frontier of Khurássán. "The people," he wrote to Colonel Grodekoff, "having nothing to reply to this, and being shamed by the reproaches of the priests, came over to my side, being able to argue no more." Thus, the gold spent upon the *mushtáids* produced its effect. The latter did not confine themselves to this only, but sent orders to all *Mullahs* and *Softas* to say no more about our flour to the people, gave Hájí Ghulám-Mirza open encouragement to deal with Nasirbekoff in the matter of preparing our flour, and punished the town *Kalkhudas* (headmen of wards) if anyone in their wards dared to say anything against letting the flour go out of the town.

A few days after this, Nasirbekoff wrote to Colonel Grodekoff: "Praised be God, everything has turned out well here; the despatch of the flour is going on; the people have quieted down a little; only the English agent still makes a stir, probably because he has received instructions to this effect, and tries to raise some objection to my purchases; but I hope that his influence does not extend across the threshold of his own door. Prince Rukn-ud-Daula, thanks to the beneficial measures taken by the Russian Ambassador in consequence of my telegram,* has become quite agreeable to the flour being sent away. The strictness of the orders sent to him by telegraph may be seen from his having sent his favourite with the pock-marked face to me to ask me to say some favourable words for him to our Embassy, and he made the same request to me yesterday evening when I went to him about the remittance of money from Astrábad."†

In the event of possible fresh disturbances, Colonel Grodekoff gave Nasirbekoff instructions not to give the *mushtáids* any more money till our last sack of flour was out of the town, and the Prince was to be informed that he would not receive his *landan* till all our supplies had been transported to the supply-depôts of the Akhál oasis. At the same time Colonel Grodekoff ordered Nasirbekoff to confine himself to the amount of flour already purchased and to stop fresh purchases by Hájí-Ghulám-Mirza.

In all, 4,763·52 cwt. of flour was transported from Mashad to Shirván. It was only in the last half of November, when all the flour had long been brought away from Mashad, and nothing more was being done by us there, that Prince Rukn-ud-Daula thought of complaining to Teherán that, in consequence of our purchases, the price of grain had risen very high at Mashad, and that the people were suffering want. In consequence of this, the Persian Government requested Zinóvieff to stop the purchases of our agents at Mashad,‡ but, as has been said above, we were at that time purchasing nothing at Mashad or in any other part of Khurássán, as the whole operation was finished.

On the transport of the flour being completed, the *mushtáids* received each 25 half-Imperials, and 100 more for the purchase of candles. As for the

* From the Russian Ambassador's telegram to General Skobelev of the 13th (25th) October, it is evident that he did not learn of the difficulties at Mashad from our agent, but from the Persian officials, and had at once requested the required additional orders.—*Author*.

† Letters from Nasirbekoff to Colonel Grodekoff, dated Mashad, 13th (25th) and 19th (31st) October.—*Author*.

‡ Telegram from Zinóvieff to Nasirbekoff, dated 22nd November (4th December) 1880. The Persian Government had several times requested Zinóvieff to stop our purchases at Mashad, but he had constantly declined to comply with this.—Telegram from him to General Skobelev, dated 19th November (1st December).—*Author*.

landau promised to the Prince, he, not awaiting the transport of the supplies to the store depôts of the Akhál *oasis*, requested that in place of the carriage we should give him its value in money, and in April 1881, 2,200 *roubles* in credit notes were sent to him.*

The story of the means employed to purchase grain at Sabzawár is much the same as that told of Mashad. Before his arrival at Sháh-Rud, Colonel Grodekoff ordered 33·6 cwt. of flour from Armenians trading there, to be delivered within 15 days at Bujnurd. Although the price for this flour was very high, Colonel Grodekoff went on to Bujnurd and Kuchán, and, fearing difficulties from the local authorities, resolved to form a small party for his interests, so as to show them that he was not much in need of them and could bring flour even from Sháh-Rud.

The Armenians, instead of carrying out their order at Sháh-Rud, ordered the grain at Sabzawár, whither Colonel Grodekoff had already sent his Agent, Mirza-Jafar-Munshieff. Having purchased the quantity of flour they required at Sabzawár, the Armenians spread a report that they had taken on themselves to supply provisions to the Russian troops to the amount of 50,000 *kharvars*! Grain went up in one day from 22 *kráns* a *kharvar* to 50. The shops were closed, and the poor people, well remembering the famine of 1871, brought their copper pots and different utensils for sale to buy bread, and asked that the Russians might be forbidden to take flour out of the town. Nevertheless the Armenians prepared to carry off the first portion of their flour to Bujnurd, and the people stirred up by the priests and crying "Remember that eight years ago we sold our children to buy bread!" rushed to the caravan-serai, where the caravan was being loaded, beat the *caravan-báshi* to death, scattered part of the flour, and would not allow the camels to leave the town. The Armenians complained to Nasirbekoff, who requested Prince Rukn-ud-Daula to give an order for the offenders to be seized and punished and the flour to be allowed to leave.

The day after the above occurrence, Jafar-Munshieff arrived at Sabzawár and showed to the local chief priest, Shariát-Madár, the credentials given him by Colonel Grodekoff, authorizing him to buy flour and rice in the town and its environs. He convinced him that that Armenians had never been ordered to buy 50,000 *kharvars* of grain, gave him presents, and managed affairs so cleverly that he bought some of both products from Shariát-Madár himself. The price of grain at once fell to its former level, and Jafar-Munshieff worked there without annoyance, so that the Governor of Nishapur, Prince Nasir-ud-Daula, telegraphed to the Sháh's Minister of Foreign Affairs: "The foreign merchants and the native traders are living in peace and concord, and no want of grain is felt." In all, 1,267·2 cwt. of flour, 865·6 cwt. of barley, and 344·96 cwt. of rice, total 2,382·76 cwt., were obtained from Sabzawár.

The same Armenians who were the cause of the disturbance at Sabzawár conceived the grandiose plan of buying up all the grain they could in Khurásán and then selling it at a high price to our agents, and with this object they sent their men to the same places at which Colonel Grodekoff's agents were buying grain. Thus, they appeared at Mianábád, Juvain, and Bujnurd, and began to purchase grain, but Colonel Grodekoff's agents, being provided with proper instructions and with presents, compelled the local authorities to make them leave those places. They also appeared at Shirván, and offered Shuja-ud-Daula

* Nasirbekoff wrote to Colonel Grodekoff on the 16th (28th) February 1881: "Prince Rukn-ud-Daula at each meeting with me reminds me in delicate hints of your promise." Afterwards Nasirbekoff wrote that the Prince consented to receive money instead of the *landau*.—*Author*.

in writing almost double what he had asked for from Colonel Grodekoff. The contents of the Armenians' letter became known to the inhabitants of the town, who went in a huge crowd to the palace of the *Ilkháni*, with a request that he would permit them to sell grain to the Armenians and raise the price of that sold to the Russians to that proposed by the new-comers. The *Ilkháni*, however, drove the crowd away, and gave no answer to the Armenians.

Thus, at all points, the Armenians failed completely, and in general at no point where supplies were being collected, under the orders of the *Ilkhánis*, did any commotion or disturbance take place.

On his return to Shirván from Mashad, Colonel Grodekoff found the *Ilkháni* of Kuchán in that town still preparing for his raid against the Tekkes. His presence there had had a deplorable effect on the Shirván supply-depôt, for the Naib of Shirván, to whom the formation of the depôt had been entrusted, was occupied in provisioning the *Ilkháni's* palace in which there were required every day the following supplies, collected from the people:—100 fowls, 10,000 bundles of lucerne, 35·84 cwt. of barley, 14·4 cwt. of mutton, 56 cwt. of butter, 3·68 cwt. of rice, 31·6 cwt. of corn, and eggs, milk, &c., as might be required.

Finally, on the 12th (21th) October, Shuja-ud-Daula left on his raid, "luckily for Nicholas Grodekoff Sáhib," repeating to him his assurances that everything undertaken by him, the *Ilkháni*, would be fulfilled, and that Colonel Grodekoff was to lay it before General Skobelev with the white face. While constantly expressing his wishes to serve us, embracing and kissing Colonel Grodekoff at meetings and partings, and calling him in his letters "the best of Christians," Shuja-ud-Daula nevertheless, on leaving for his raid, gave orders to the local authorities that no one was to dare to sell grain to the Russians. In short, to carry on business with Shuja-ud-Daula was more than difficult: one had to drink with him, to listen to his drunken speeches, to be present at his orgies, and still to be on one's guard not to show signs of disgust which would at once have called forth the anger of this barbarian. Truly the world has produced few such brutes, as Colonel Grodekoff expressed himself in a telegram to General Skobelev about the authorities of Kuchán *

After the departure of the *Ilkháni*, the delivery of supplies at the Shirván supply-depôt went on successfully, and the flour prepared at Mashad began also to arrive. The Bujnurd depôt also began to fill up, and as for that at Takhta-i-Rabát, in view of its proximity to the Tekke frontier, Colonel Grodekoff did not think it possible to send any of his party thither to receive the supplies, but put the responsibility for their safe keeping on the local authorities.

The plan for the preparation of supplies had been carried out successfully, and the network of agencies spread over all Khurássán had prevented a rise in the prices of grain, except the temporary one at Sabzawár, and that at Mashad,† which was also in part caused by the increased export of grain to

* Dated 25th September (7th October) 1880.—*Author*.

† On the Persian Government pointing out to Zinóvieff that a rise in the price of grain might have an effect on the poorer classes of the population which are so numerous in Persia, he replied to the Minister of Foreign Affairs that such difficulties would be temporary and that they would be amply repaid by the increased security which would in future be enjoyed by the people of Khurássán.—(Zinóvieff's despatch, dated 4th (16th) October 1880, No. 79.) How sensitive the Persians were on the subject of the export of grain may be shewn by the following fact. For the Expedition of 1879, our contractors bought various products in the provinces of Astráhal and Mazándarán. The prices of eatables in consequence of this reached such a height that the Persian Government was forced to forbid their export, but, at Zinóvieff's request, Mirza-Hussain-Khán had

Kirmán and Seistán. In less than a month by the 20th October (1st November) Colonel Grodekoff had in the Shirván and Bujnurd supply-depôts a two months' supply of flour and one month's forage,* and in two months by the 27th November (9th December) he had $2\frac{1}{2}$ months' supply of the former and $3\frac{1}{2}$ of the latter.

Supplies continued to arrive at the magazines even after the 27th November (9th December), so that in all there were collected supplies of flour for four and of barley for three months.† As for groats, owing to the failure of the crop, only one-third part of what was required had been received, but to balance that Colonel Grodekoff had obtained a small quantity of ship's rations, which, on the capture of Gok-Tapa, would meet all requirements, and which would be easily obtained in Persia, such as *ghi*, salt, pepper-corns, peas, and lentils.

The main depôts at Shirván and Bujnurd were four marches from the nearest points of the Akhál *oasis*, and therefore a journey there and back could only be made in ten days. Colonel Grodekoff saw that they were too far from the Akhál *oasis* and did not satisfy the principles laid down by the Commander of the Expedition as to the supply-depôts being close to the theatre of operations. When at Mashad he had proposed to move part of the supplies further forward, and he therefore made a reconnaissance in the northern parts of the *vilúgats* of Bujnurd and Kuchán nearest to the Tekke *oasis* to choose a place for the supply-depôt and finally fixed upon Yangi-Kala which is some 60 or 70 *vershs* (40 to 46 miles) from Gok-Tapa. Besides a wall, it had a citadel with high and strong walls, and its interior space was so great that there was room inside it to store 32,000 cwt. of supplies. At Yangi-Kala there were in all 20 families, but in the vicinity there were several small settlements, and at Yangi-Kala itself lived the Naib of the Kushkhán circle, Mustafa-Kuli-Aga, a cousin of the *Ikhán* of Kuchán. Shuja-ud-Daula had not only no objection to the supply-depôt being transferred to Yangi-Kala, but he promised to be responsible for the safety of our supplies there, and for this purpose he strengthened his guards on the frontier. Colonel Grodekoff appointed Lieutenant Krishtopenko Superintendent of the depôt and Commandant of Yangi-Kala, and gave him instructions in which he was ordered on arrival at the place to at once place himself in communication with Naib Mustafa-Kuli-Aga, who, being Shuja-ud-Daula's cousin, had a right to his special consideration. The character and habits of Mustafa-Kuli-Aga having been pointed out to him, Krishtopenko was shown how necessary it was to be careful in his relations with him, and was ordered, so as to interest him in the success of the operation, to entrust to him the purchase of barley for the Yangi-Kala supply-depôt. It was noted that Yangi-Kala was only 8 *farsangs* from Gok-Tapa, a distance easily traversed in a day, and therefore he was to take all measures of security to guard against a sudden attack of the Tekkes. The

consented to postpone the carrying out of this order. But in the beginning of February 1880, the people of the village of Amir-Kala, who were threatened with total want, went to the town of Barfrush and demanded that the export of eatables should be stopped. All the efforts of the Governor, backed up by the *mushtaid*, to quiet the clamouring people were unavailing, and, after being abused and threatened, the Governor and the *mushtaid* were forced to stop the export and acquaint the Governor-General of the province, who was at Sari, of what had happened. To avoid having recourse to force, which the people would have resisted, the Governor-General thought it necessary to request our merchants to cease for some days the despatch of their corn which had already been stored at Barfrush.—Despatch from Zinóvieff, No. 16, dated 7th (19th February) 1880.—*Author*.

* Telegram from Colonel Grodekoff to General Skobelev, dated 23rd October (4th November) 1880.—*Author*.

† This must be a mistake in the original: see above.—J. M. G.

gates were to be specially guarded. Some years before there had been an example at Garmáb of how the Tekkes had glided up to the gates by night, and only the presence of mind of a woman who cried out to the people to bring up materials that could be easily set on fire to the gates, and thus make a light, had saved the village from being plundered. All that was brought up from the Bujnurd and Shirván supply-depôts was to be placed in the citadel of Yangi-Kala, partly in the open in bales, partly in covered buildings. The roofs of these buildings were to be covered with earth, measures taken to construct new sheds, and wells dug so as to have water in the event of a blockade. The walls of the citadel were very high and in good order, but the outer walls very low, and therefore they were to be heightened and a ditch dug all round the fortress so as to protect the wall against escalade, which the Tekkes usually undertake with ladders.*

Krishtopenko arrived at Yangi-Kala on the 30th October (11th November) with one Kuban Cossack and 20 armed men of Bujnurd. Colonel Grodekoff had at first proposed to hire 100 footmen (*khirtichi*), all good shots, from Muhammadábád for the garrison of Yangi-Kala, and had already made arrangements for this, but Mustafa-Kuli-Aga pointed out to him that the Shaddelu and Zafranlu were hostile to one another, and that the occupation of Yangi-Kala by a garrison of Shaddelu might give rise to conflicts with the inhabitants who were Zafranlu and might resent Shaddelu being preferred to them, therefore he advised them not to hire *khirtichi* from Muhammadábád. Colonel Grodekoff agreed with this and resolved not to hire these men. He at the same time argued thus with himself. If some men are hired, even though they are Zafranlu, the tie between them and the Russians will only be their daily pay of 30 *kopecks*; is this tie strong enough to make a Kurd fight well and defend the magazine at Yangi-Kala? Evidently not. Colonel Grodekoff, therefore, persuaded Mustafa-Kuli-Aga to bring to the place 30 armed footmen with their families. These men, having their wives and children to fight for, would defend our magazine all the better.

On arriving at Yangi-Kala, Lieutenant Krishtopenko at once demanded that grain should be brought thither according to the quantity which Shuja-ud-Daula had promised to deliver, and within five days he could report to Colonel Grodekoff that 1,280 cwt. of barley had been brought in, and that he had secretly bought 640 cwt. from the Naib of Kush-Khána, which had also begun to come in. Things were going on very well.

After Krishtopenko had settled at Yangi-Kala and supplies had begun to come in thither, the Tekkes heard of it and began to come every day to visit the Naib to observe all that was done in the place. They counted every load arriving and each day said: "It is not time yet, let us wait a little; when more has been brought, we will come with our wives and children and plunder the Russian sacks." Besides observing Yangi-Kala, the Tekkes also paid visits to Shuja-ud-Daula and asked him on one hand not to sell grain to the Russians, strengthening their request by a present of valuable horses, and on the other to sell them wheat and barley. Shuja-ud-Daula took the horses and also took gifts from Colonel Grodekoff, who, observing the Tekke Ambassadors, took this means of paralyzing their action. Of course, the *Ikkhání* could make no open opposition to our operations, but he had in his hands a whole province which he ruled absolutely, and therefore could throw obstacles in our way at every step, and this is why Colonel Grodekoff made a point of on no account

* Instructions from Colonel Grodekoff to Lieutenant Krishtopenko, dated 29th October (10th November).—*Author*.

quarrelling with Shuja-ud Daula. For this reason he paid no attention to the Amir's action in allowing his subjects to sell grain to the Tekkes, although the Ambassador had recommended him to make use of his name and to inform the local authorities that we could not permit them to have relations with our enemies, and that to retain our friendship they would have to abstain from all intercourse, direct or indirect, with our foes.*

Thus, on the 11th (23rd) October, on the eve of Shuja-ud-Daula's departure on his raid, there arrived at Shirván in the name of the Council of Four, Tashayak, Khudáyár, and Kázi-Khán to ask for permission to buy wheat and barley. The *Ilkháni* took them with him, and, having talked over the question on the march, gave them permission.

At the same time, small parties of Tekkes showed themselves in the Kushkhána district and on the road from Yangi-Kala to Shirván, one of which had the boldness to press up to Shirván itself and carry off some Kurds as prisoners.

It must be remarked that before this the Tekkes had been in the habit of constantly coming to Shirván and Bujnurd, staying there for some time and gathering information as to what the Russians were doing. Notwithstanding that most of them came as merchants, *i.e.*, as if on private business, such was the prestige of the Tekkes that they were always received as official personages and given quarters, supplies from Government, and guides to take them home. Evidently the frontier authorities were not certain as to who would get the upper hand in the coming struggle—Russians or Tekkes.†

Both at Bujnurd and at Kuchán, separate houses had been hired for our supply-depôts‡ and everywhere guards had been placed over them,§ so that the Tekkes could not penetrate into the magazines. Yangi-Kala was quite another matter, as it itself formed an enclosure inside which were the homes of the inhabitants and of the Naib and our supply-depôt; therefore there was no possibility of preventing the spying of the Tekkes.

Notwithstanding all this, Colonel Grodekoff determined to move the Bujnurd and Shirvan supply-depôts forward. He therefore entered into negotiations with the owners of transport, of which there was at Bujnurd alone such a large amount that it would carry at one time 3,200 cwt. Besides this, at Sabzawár 1,000 and at Mashad 300 camels were gathered, and still all this left the province of Kuchán quite untouched. The thing had gone so far that the *chervodárs* had received earnest money, and the advance of the first convoy from Bujnurd was fixed for the 5th (17th) November, armed Kurds, both mounted and dismounted, having been hired to escort it. But just then, one after another disquieting rumours began to be spread as to the intentions of the Tekkes to destroy Yangi-Kala. The Kurds began to say loudly to the Russians: "The Tekkes will take your Yangi-Kala. It is only one day to it from Gok-Tapa. They will come 5,000 strong with scaling ladders; they will come suddenly in such strength as to be able to pass under the walls of the Kurdish villages on the way with impunity; they will come and will sweep all before them; it is only a short time ago that Bujnurd was pouring out

* Letter from the Russian Ambassador to Grodekoff, No. 454, dated 8th (20th) September 1880.—*Author*.

† Even after the capture of Gok-Tapa, the headmen of Garmáb, Sayad-Hussain-Khán had gone out 10 *verst*s (9½ miles) to meet the fugitives with bread and salt.—Report from Lieutenant Krishtopenko, dated Garmáb, 16th (28th) January 1880.—*Author*.

‡ At Bujnurd, Yár-Muhammad-Khán had placed his old palace gratuitously at our disposal.—*Author*.

§ Near all our supply-depôts wells had been dug, in case of fire, and the ponds filled with water.—*Author*.

her tears for 60 men carried off into captivity at Nukhur. A Kurd will soon be sold for a *krán*. You with your bags* are only bringing the Tekkes into our country." Serious people said that Yangi-Kala was placed in a dangerous position on the border of the Tekmirán steppe, the approaches to which were protected by no guards, and even pointed out the routes by which the Tekkes would come. As a rule they did not advise us to take up a position in Yangi-Kala. The *Ikhnáni* of Bujnurd, who at first had approved of the choice of Yangi-Kala for a supply-depôt, now began to say that nobody knew better than the Tekkes how to capture a fort, and that for this purpose they took ladders with them. "Then," he said to Colonel Grodekoff, "there is this risk that your supply-depôt will be two marches nearer Gok-Tapa. If you defeat the Tekkes, all Bujnurd will carry your bags on their shoulders to Gok-Tapa. If any misfortune happens, remember that I have warned you."

At the same time the Ambassador, to whom Colonel Grodekoff had notified the transfer of the magazines forward, wrote to the latter that, according to his information, Yangi-Kala was outside of the boundaries of Persia and on the border of the Akhál oasis,† and that therefore it was impossible to count much upon the assistance of the Persian authorities. He therefore thought that the formation of supply-depôts at places too close to the borders of the Akhál-Tekke oasis might endanger our stores.‡ In his opinion, the position of the depôts at Bujnurd, Shirván, and Takhta-i-Rabát completely answered the requirements of General Skobelev.§

Finally, in the beginning of November news was received that a band of Tekkes (400 strong) had been seen in the Mána valley, but had quickly disappeared; that a body of 2,000 Tekkes was guarding the road from Nukhur to Bujnurd, and that Sub-Lieutenant Voropánoff's volunteers were following them up; || and lastly, that serious rumours had been received from Gok-Tapa to the effect that the enemy intended to carry out a raid into the Kush-Khána district to destroy our magazines. This last rumour was so alarming that Shuja-ud-Daula¶ assembled his horse militia to be prepared to meet the Tekkes.

On this subject he wrote to Alláyár-Beg, Naib of Shirván: "Reports have been received from the frontier that the Turkumáns have heard that Russian *Sáhíbs*, with large sums of money, are living at Kush-Khána, and therefore have conceived visions in their heads. You yourself know that affairs are not now with the Tekkes as formerly: all the Tekkes, numbering 12,000 horsemen, are collected in Gok-Tapa, and therefore we must be on our guard against them. On receipt of this order, you are at once to send all your *Shamkhalehis*** to Yangi-Kala to mount guard there day and night, and you

* *Khála*, i.e., a package of provisions.—*Author*.

† Telegram from Zinóvieff to Colonel Grodekoff, dated 30th October (11th November). In all probability, the Ambassador, not knowing of the existence of the village called Yangi-Kala in the Kush-Khána district, supposed that Colonel Grodekoff was about to transfer the supply-depôt to the Yangi-Kala near Gok-Tapa. In Colonel Grodekoff's telegram informing Zinóvieff of the transfer of the supply-depôt, he said: "Two months' supplies of flour and 1 month's forage have been received. I have returned from an extensive reconnaissance, and have found it possible to move the Shirván supply-depôt and part of that at Bujnurd to Yangi-Kala, two marches from Gok-Tapa. I am collecting transport for this."—*Author*.

‡ Letter dated 21st October (2nd November) 1880, No. 570.—*Author*.

§ Telegram from the Russian Ambassador to Colonel Grodekoff, dated 11th (23rd October) 1880.—*Author*.

|| Report from Lieutenant Voropánoff to Colonel Grodekoff, Nukhur, dated 1st (13th) November 1880.—*Author*.

¶ The district of Kush-Khána, in which is situated the village of Yangi-Kala.—*Author*.

** Horsemen armed with rifled firearms.—*Author*.

are to inform our well-beloved Mustafa-Kuli-Aga of this. The Russian *Sáhibs* desired very much to go without me to Yangi-Kala, but to go there is not good. Tell Nicholas Grodekoff from me that when he wishes to go to Yangi-Kala and to Kush-Khána, he is to let me know. For him to go there himself is not needful. Let him write to Mustafa-Kuli-Aga and he will fulfil everything unconditionally. The Russian *Sáhibs* should not go to Yangi-Kala without letting me know. Send off your *Shamkhalchis* at once. If Mustafa-Kuli-Aga does not wish to keep them all at Yangi-Kala, he may place them in the nearest villages. Carry all this out at once."

The *Ilkháni* of Bujnurd also gathered part of his troops and placed them in the Mána valley. The disquieting news from the frontier shook the decision of some of the *chernodárs* to carry our stores from Bujnurd to Yangi-Kala.

Colonel Grodekoff hearing all these rumours, resolved to postpone the movement of the supply-depôts to Yangi-Kala. He recalled Lieutenant Krishtopenko and discharged the transport and the armed escorts he had hired. He did not, however, completely give up the idea of carrying the supply-depôts forward, but only put off this operation till a more favourable time. The transport of supplies to Yangi-Kala went on even after Krishtopenko's departure, but the responsibility of their safe keeping was laid on Mustafa-Kuli-Aga, Naib of Kush-Khána. This was the best guarantee for the security of the supplies even in the event of a Tekke inroad, for Lieutenant Krishtopenko had heard rumours that, if the Tekkes attacked Yangi-Kala, to save the fortress from being destroyed, the Naib would have handed him and the Kuban Cossacks with him over to the enemy. On Krishtopenko's departure, therefore, Mustafa-Kuli-Aga had to seek for other means of preserving his fortress and the grain placed in his charge in it. The Naib took advantage of the militia collected, and, instead of the ten days for which it had been summoned, kept it for a month till all rumours of Tekke inroads had ceased and till the latter people were themselves threatened by our troops before Gok-Tapa. On the 25th December 1880 (6th January) 1881, Lieutenant-Colonel Volkoff reported from Takhta-i-Rabát that all was quiet in the Kush-Khána district, and that even the local inhabitants were daily making raids into the Akhál oasis and carrying off camels.*

All the same the reports of the intentions of the Tekkes to make an attack on Yangi-Kala threatened at one time to turn out true. They were in particular attracted by twenty loads of gold which the Russians were said to have sent to this place.† Thus in the end of November a party of 200 horsemen appeared in the Kush-Khána district, but returned home on account of the snow and the high wind. At the same time about 100 men were seen near the village of Firúza where they were met by the headman of the Firúza border, Muhammad-Verdi-Khán, with horse and foot militia and forced to retire. Shuja-ud-Daula reported to Mashad that the boldness of the Tekkes had increased since they had heard that he had given up his raid.‡

In communicating this to Colonel Grodekoff, Shuja-ud-Daula wrote to him: "You may be sure that I am thinking of your affairs, so do not be troubled. As soon as the *Muharram* § is finished, I shall myself go to the

* Report from Volkoff, No. 33.—*Author*.

† There was a report that the Tekkes, in connivance with some Kurds, had intended to capture our money which Staff-Captain Erdeli was taking from Shirván to Mashad to be changed.—*Author*.

‡ Telegram from the Russian Ambassador to General Skobelev, dated 27th November (9th December) 1880.—*Author*.

§ A fast in memory of the martyrdom of Hussain and Hassan, sons of Ali.—*Author*.

frontier, and if your people wish to go thither, I can accompany them. In a word, do not be anxious as to your affairs. I shall thank you to send me another lustre. The cursed workman fastened the nail badly to the ceiling from which your first lustre was suspended. Such is the carelessness of the Mussalmán people! There is only one Jesus, on whom were poured out all Divine blessings, so that he could come from heaven and form such a people as the Russians. I was so much annoyed by the loss of the first lustre, that nothing in the world, but a second, will console me. For friendship's sake you take much trouble upon yourself, but I cannot consent to so annoy you. As it was a friendly present, I cannot accept a new one, except on condition that you pardon me for having broken the first lustre. You and your people have been sent by the Russian Government; every wish of yours will be fulfilled in accordance with the strict friendship between our two Governments. But you do not know the Turkumáns well, or how faithless and wicked they are. You must be careful. But be easy in your mind. Not wishing to repeat to you my assurances of friendship, know that all that I do is for the benefit of our friendship."*

At the end of November, when $2\frac{1}{2}$ months' flour for 8,000 men (12,183·36 cwt.) and $3\frac{1}{2}$ months' barley (21,440 cwt., i.e., the quantity required by General Skobeleff) had been collected in our supply-depôts, Colonel Grodekoff returned to the Field Force, giving over charge of the completion of the operation to Lieutenant-Colonel Volkoff of the General Staff.

Thus the mission entrusted to Colonel Grodekoff had been carried out by him successfully, and supplies obtained in considerably greater quantities than had been required. At the end of November our supply-depôts contained†:—

	Barley.	Flour.	Salt.	Ghee.	Rice.	Peas.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Shirván	... 9,529·6	6,181·12	92·16	...	152·64	26·88
Bujnurd	... 8,320	6,002·24	...	152	115·52	115·2
Garmikhán	... 820·48	...	...	...	...	38·4
Takhta-i-Rabát	... 1,152	...	...	...	...	...
Yangi-Kala	... 1,728	...	...	...	...	28·8
Total 34,456·32	= 21,549·08	12,183·36	92·16‡	152§	268·16||	209·28

9,600 cwt. of barley was still to be received, and after that Volkoff was to move the supplies of the Bujnurd and Shirván depôts forward so as to have supplies near the Tekke border, and thus make all preparations for transferring these supplies into the depôts to be formed in the Akhál-Tekke *oasis*. For this purpose, 67,000 *roubles* were given to him, of which 5,000 in gold, 2,000 in bank silver, and 60,000 in credit notes. Immediately after all supplies had been brought in, he was to present his plan for their transport to points close to and even in the *oasis*.¶

Knowing by experience how surprisingly great was the loss of stores badly packed, sometimes reaching even 25 per cent., Colonel Grodekoff

* Letter of 6th *Muharram*, 1297.—*Author*.

† Report from Colonel Grodekoff to Zinóvieff, No. 199, dated 28th November (10th December) 1880.—*Author*.

‡ For 1,000 men for $3\frac{1}{2}$ months.—*Author*.

§ For 8,000 men for $1\frac{1}{2}$ months.—*Author*.

|| For 1,000 men for 2 months.—*Author*.

¶ Instructions from General Skobeleff to Lieutenant-Colonel Volkoff, No. 7972, dated 20th November (2nd December) 1880.—*Author*.

resolved to take most energetic measures to avoid this in the transport of the Persian supplies to the magazines of the *oasis*. His aim was to have no loss in transport at all and he attained this, as there was not a loss of an ounce. Colonel Grodekoff resolved to spare no money to have the supplies packed in double sacks or in woollen *chuváls*,* and the cost of packing reached $\frac{1}{4}$ th of the whole expenditure for supplies and their delivery in the *oasis*.

The materials for the sacks were obtained in Russia and in Persia. When Colonel Grodekoff left for Persia, the Commander of the Expedition had entrusted our agents at Astrakhán and Baku with the purchase of 100,000 *arshins* (233,333 feet) of sack-cloth, which however was sent to Gaz and thence by Sháh-Rud to Bujnurd and Shirván. When the first supplies began to arrive at the supply-depôts, it was seen that this quantity would be quite insufficient, especially after Colonel Grodekoff had decided that all supplies should be carried in double sacks. The latter applied to Nasirbekoff at Mashad to buy up all the baize there and obtain not less than 1,000 woollen *chuváls*, and also empowered his agents at Sabzawár, Nishapur, Bujnurd, Kuchán, and Shirván to buy up baize and coarse calico in any quantity. Nasirbekoff bought up all the baize at Mashad; but as this was insufficient, he also bought up all the Indian shirtings he could find, obtaining a total of 50,000 *arshins* (116,666 feet) of both. In the other places 85,000 *arshins* (198,333 feet) of baize were bought. This was still insufficient; and as the resources of Khurássán were exhausted, Colonel Grodekoff thought it necessary to send some one to Baku to buy 160,000 *arshins* (373,383 feet) of sack-cloth. In all, 396,760 *arshins* (925,773 feet) of sack-cloth, baize, coarse calico, and Indian shirtings were bought.

Out of this material,† 70,780 sacks were made by hired workmen. The inhabitants of Shirván and Bujnurd, seeing how many bags we required, began themselves to make some according to our patterns and to sell them to us. 7,325 sacks were obtained from this source, giving a total of 78,012 ordinary sacks, and in addition there were 2,420 woollen *chuváls*.

More sack-cloth and baize was bought than was required, and not only empty sacks, but even uncut sail-cloth was given in to the supply-depôts in the *oasis*. This may be explained as follows. The Commander of the Expedition, when sending Lieutenant-Colonel Volkoff into Persia, ordered him to collect information as to the productive power of Daragaz in the event of our having to make fresh purchases of supplies in those regions;‡ and after the capture of Gok-Tapa, Volkoff was actually ordered to obtain 12,160 cwt. of barley there. The spare sack-cloth and baize was meant for these supplies; but on the departure of General Skobelev for St. Petersburg, the above order was cancelled. Volkoff was ordered to liquidate the whole matter, and, among other things, to hand over to the supply-depôts the empty sacks and the uncut sail-cloth. In addition to the above reasons, the spare sacks were prepared to meet the case of a want of them being felt at the siege of Gok-Tapa, for the reconnaissance of the 6th (18th) July 1880 had shown that the fortress would have to be taken by a regular siege. There actually was a demand for bags for this purpose, which could not be met by our agents in Persia, as the road from Garmáb to Gok-Tapa was strongly occupied by the Tekkes.

* Sacks.—*Author*.

† Part of the sack-cloth rotted in the Custom-house at Gaz and at Shirván, and 22,000 *arshins* (51,333 feet) of it were delivered at the supply-depôts in the Akhál *oasis*.—*Author*.

‡ Instructions from General Skobelev to Colonel Grodekoff, No. 8011, dated 20th November (2nd December) 1880.—*Author*.

After the departure of Colonel Grodekoff from Persia, the supplies which remained to be delivered, according to the contract made with Shuja-ud-Daula, were brought into Shirván, Yangi-Kala, and Takhta-i-Rabát, and in addition the Amir asked us to take over part of the barley from him in the village of Hassanábád, not far from Takhta-i-Rabát. By the beginning of January 1881, all the deliveries had been made. As for the Bujnurd supply-depôt, everything expected had been delivered there by the middle of December.

On the occupation of Yegyán-Bátir-Kala, in the beginning of December, the Commander of the Expedition proposed to send orders to Volkoff to move up 6,400 cwt. of barley and 3,200 cwt. of flour to Kalát-i-Nur-Verdi-Khán; but as for this purpose it would have been necessary to send 3 companies, 2 squadrons of dragoons, and 4 mountain guns to the village of Katlish to meet the convoy, and as the time for the decisive advance against Gok-Tapa had now arrived, and it was not desirable to scatter our forces, this idea was given up, and it was resolved to make no use of the Persian supplies till after the capture of Gok-Tapa. Nevertheless, Volkoff was warned that the Temporary Commander of the troops might send a few *sotnias* of cavalry to Takhta-i-Rabát to bring forage thence on their troop horses. He was therefore ordered to send a superintendent for this purpose to that place, but afterwards to Yangi-Kala.*

Besides all the above supplies, our agents in Persia received orders from Yegyán-Bátir-Kala to buy 10,000 sheep for the supply of the troops, as the former contractor for meat for the force had become bankrupt and the new one, the merchant Gromoff, could only deliver meat from the (1st) 13th January 1881.

In the matter of transport of supplies and obtaining of cattle, General Skobeleff asked for the co-operation of Yár-Muhammad-Khán, who not long before had received from the Sháh the title of *Sugám-ud-Daula* ("The sharpest Arrow of the Empire"). To obtain cattle, Volkoff sent Lieutenant Krishtopenko to the Mána valley† and went himself on the 19th (31st) December to Yangi-Kala and Takhta-i-Rabát to receive the barley, which was being sent thither under the orders of Shuja-ud-Daula. There were to be received in Takhta-i-Rabát 225, at Hassanábád, 5 *versts* (3½ miles from Takhta-i-Rabát), 200, and at Yangi-Kalá 300 *Khárvars*, in all 725 *Khárvars* (4,176 cwt.).‡

On the opening of the trenches before Gok-Tapa the Commander of the Expedition ordered Volkoff to take most energetic measures to hire transport to bring up as large a quantity of forage as possible to Gok-Tapa, and when the transport was all collected, he was to send word to our camp, so that escorts might be sent for the convoys. But as the collection of transport took much time and our cavalry were in great need of forage, notice was again sent to Volkoff that a few *sotnias* would be sent to Takhta-i-Rabát and to Yangi-Kala to bring in barley on their horses. General Skobeleff also remarked that, to avoid political difficulties, which might be caused by the arrival of our troops

* Instructions from the Chief of the Staff to Volkoff, No. 2216, dated 13th (25th) December 1880.—It has been mentioned above that supplies were being brought to both these places, but that we had no agents there.—*Author*.

† The prices for sheep at that time were very high, *viz.*,—

			<i>Roubles.</i>	<i>Kopecks.</i>
1 year old	...	...	1	80
2 do.	...	...	3	...
3 do. and above that	...	...	4½	...

Cattle had to be bought in small herds. All animals were first ordered to be sent to Bámi, but afterwards to Kalát.—Report from Volkoff to General Skobeleff, No. 29, dated Bujnurd, 16th (28th) December 1880.

‡ Reports from Volkoff, Nos. 216 and 33, dated 19th and 25th December 1880 (31st December 1880 and 6th January 1881).—*Author*.

at these points, it would be better if Volkoff could in a short time gather as much transport as would serve to clear out at one time all the supplies in the supply depôts at Yangi-Kala and Takhta-i-Rabât. General Skobelev thought he had a right at any time to move a force to Garmâb "and even a little further. In a word, gather transport at any cost," wrote General Skobelev to Volkoff. "Load up as much barley as you can. Let us know when it is ready. We shall send a force to take it away, and then we shall eat up the political gruel together. But mix up the Persian authorities in it as much as you can. Everything must be done *in a friendly manner*. Try to interest Shuja-ud-Daula in the successful issue of the affair. Use every exertion one way or another; but, whatever you do, send as much barley as possible to the force before Gok-Tapa."* These instructions were sent to Volkoff on the 25th December 1880 (6th January 1881).

Next day, however, General Skobelev received a letter from Tairoff from Bujnurd, saying that he had sent men into all corners of Khurâssân to hire transport animals and bring them into Bujnurd, so the General sent new instructions to Volkoff, telling him to report the date of the march of the convoys and the route they were to follow, so that he might make arrangements for a force to be sent to the Persian frontier to escort the caravans. First of all, 3,000 cwt. of barley and 160 cwt. of ghee were to be sent up, then a month's supply of flour for 8,000 men. Volkoff was to keep in view that, after the capture of Gok-Tapa, measures would have to be taken to at once transport all the Persian supplies into the Akhâl oasis, and he was therefore to make corresponding preparations of transport.†

On receiving his orders from the Commander of the Expedition, Volkoff at once proceeded to collect transport, and by the 29th December 1880 (10th January 1881) he hoped to have in Takhta-i-Rabât 150 pack-horses and 200 asses, which could carry to Garmâb in all 800 cwt. of barley, *i.e.*, a three days' supply for 3,000 horses, and which could afterwards throw a similar quantity into that place every two days. Thus, he proposed to provide the force with barley till the arrival of the transport from Bujnurd. He promised to deliver to the force in a month not less than 9,600 cwt. of barley, and for the escort of the convoys to Garmâb, Shuja-ud-Daula had proposed to place 200 horsemen at Volkoff's disposal.

The first convoy was to arrive at Garmâb on the 30th December 1880 (11th January 1881), on which date Volkoff had requested cavalry to be sent out from Gok-Tapa.‡ General Skobelev, however, in view of the serious state of affairs before that fortress [sortie of 28th December 1880 (9th January 1881) and capture of a colour and a gun], did not think fit to make a detachment from his force for the sake of 800 cwt. of barley at Garmâb, and ordered Volkoff to collect more transport so as to make it worth while for him to send troops out. As for the transport which Volkoff had already collected, it was desirable that it should be sent to join the army under an escort of Kurds.§

The drivers, however, hearing that a considerable body of Tekkes were holding the road between Garmâb and Gok-Tapa in rear of the Russians, and were killing all the inhabitants who were coming in to the Russian camp to trade, on reaching Garmâb refused to go further. The transport drivers,

* Instructions from General Skobelev to Volkoff, No. 8700, dated 25th December 1880 (6th January 1881).—*Author*.

† Instructions from General Skobelev to Volkoff, No. 8759, dated 27th December 1880 (8th January 1881).—*Author*.

‡ Report from Volkoff, No. 37, dated 28th December 1880 (9th January 1881).—*Author*.

§ Instructions to Volkoff, No. 8839, dated 30th December 1880 (11th January 1881).—*Author*.

who had brought up the supplies from Bujnurd and who had left Bujnurd on the 4th (16th) January, also refused to go further than Garmáb, and would engage to go only to Khálva-Chashma.*

As, from the constant arrival of supplies, the buildings of the supply-depôt at Garmáb and Khálva-Chashma were overflowing,† Volkoff was forced to stop further transport from the Bujnurd depôt.‡

Thus, of all the supplies prepared in Persia none succeeded in reaching the troops before the capture of Gok-Tapa. On the very day of the taking of that fortress, the 12th (24th) January, Volkoff received orders to at once send up supplies to the force and to buy vegetables and salt for the troops, and on the 16th (28th) January a column was sent to Garmáb, consisting of a company of the Daghistán Regiment and a *sotnia* of Taman Cossacks, with the regimental pack-horses and with camels captured by us in the fortress to bring up barley to Gok-Tapa.

Before this, General Skobeleff had informed the Russian Ambassador that he intended to send regimental wagons and pack-horses to our supply-depôts in Persia to bring up stores to the force, and had asked for his co-operation.

Zinóvieff therefore made the following requests to the Persian Government:—(1) That the local authorities should be ordered to really help Volkoff in the collection and hire of pack animals. (2) That our army transport with its drivers and the necessary attendants should be allowed to proceed to the places where the supply-depôts were. (3) That the *Ilkháns* of Kuchán and Bujnurd should be ordered to collect their mounted militia to protect our convoys, not only during their march through Persian territory, but, if required, even beyond the frontier. (4) That the military escort sent from our force should be allowed to come without obstacle to the frontier villages of Kuchán to receive the convoys.

The Sháh gave his full consent to all these requests, but ordered his Minister of Foreign Affairs to bring the following considerations to the notice of the Ambassador.

While ready to co-operate with us in the broadest sense of the word in everything connected with our Expedition, the Persian Government wished to save itself as far as possible from being suspected of having taken part in it, and was therefore obliged so to act that all measures should seem to be initiated by the local authorities in Khurássán and should appear to have been forced upon them by the necessity for keeping order on the frontier. Such care was, in the opinion of the Sháh and of his Minister of Foreign Affairs, necessary to prevent remonstrances from the English Agents, who always looked very unfavourably on the least action of the Persian Government, which appeared to give the smallest support to our troops. As the Persian Government was far from being fully acquainted with local conditions, some of its orders upon our demands had to be entirely left to the care of the *Ilkhánis*, who had been ordered to enter into communication with Volkoff. One of these matters was the employment of the Kurdish militia beyond the frontier as escort for our convoys,§ and in this matter the Sháh's Government could take no responsibility upon itself.

* Reports from Volkoff, dated 31st December 1880 (12th January 1881) and 3rd (15th) January 1881, Nos. 39 and 40.—*Author*.

† At Garmáb on the 8th (20th) January were 1,552·64 cwt. of barley and at Khálva-Chashma 1,920 cwt.—Report from Krístopenko, dated Garmáb, 7th (19th) January 1881.—*Author*.

‡ Report from Volkoff, No. 241, dated 9th (21st) January 1881.—*Author*.

§ The Commander of the Expedition said that he did not require this escort, but that we must remember that, if it was pecuniarily remunerative to the *Ilkhánis*, we must not refuse it.—*Author*.

According to these considerations, corresponding orders were given by the Minister of Foreign Affairs to Prince Rukn-ud-Daula, and Zinóvieff on his part informed Nasirbekoff of the orders given by the Persian Government, and ordered him to stir up the Prince to carry out without delay all the measures depending upon him, and to provide the *Ilkhánis* with instructions according to the Sháh's decisions.*

At Garmáb, on the day of the capture of Gok-Tapa, there were 2,460·56 cwt. of barley, and within three days this quantity was to be increased by 1,280 cwt. from Hassanábád and 1,856 cwt. from Yangi-Kala. Thus at Garmáb there would be collected 5,596·56 cwt. of barley alone without counting other supplies. There were, however, no means of transport to take them to Gok-Tapa, as the inhabitants still considered the road dangerous.† The column sent to Garmáb on the 16th (28th) January took with it only 347·2 cwt. of barley in all, as the Tekke camels refused to work, being so exhausted that out of 100 sent to Garmáb, unladen, only 60 arrived there.‡ Part therefore of the camels of the convoy which arrived at Gok-Tapa on the 16th (28th) January were detailed to bring in the Persian supplies, and all the pack-saddles of the pack-horse transport not in use were sent up from the rear to the advanced force.§ In the meantime the Garmáb supply-depôt was being gradually increased, and on the 30th January (11th February) there were in it 8,000 cwt. of barley, 960 cwt. of flour, 80 cwt. of ghee, 160 cwt. of salt, and 34·56 cwt. of peas.||

Meanwhile, the *chervadárs* who had been collected at Bujnurd from Sabzáwár, Juvain, Miándasht, and other places, having been assured that the road to Gok-Tapa was safe, began to carry the supplies from the Bujnurd supply-depôt straight to that place on the 24th January (5th February), and after that the transport of supplies into the *oasis* went on freely until the depôts were completely emptied.

In the *vilayat* of Kuchán, the collection of transport went on slowly at first, as the people asked absurd prices, and it was only in the month of January, on the arrival of camels and mules from Mashhad and from the Herát and Seistán frontier, that the transport of the Shirván supply-depôt to Askhabád began. On the departure of the first convoy there was a great disturbance between the inhabitants of Shirván and the Mashhad *chervadárs* who had agreed to carry the supplies at much lower prices than the former. Shuja-ud-Daula also hired his mules out to us, and the transport went on without a break. Neither frost nor snow-storms in the hills stopped the *chervadárs*, whose asses perished in them, nor yet the rumours of Tekke bands prowling in the hills and looking out for a chance of plundering our caravans, nor the actual capture by brigands in the end of February on the road between Askhabád and Bardar of 25 camels belonging to our *chervadár*.

The latter circumstance caused one *sotnia* of Taman Cossacks to be placed in Buzmein and another to be put at the disposal of Lieutenant-Colonel Volkoff till all supplies had been brought away from Persia,¶ the latter *sotnia*

* Letter from Zinóvieff to Volkoff, No. 3, dated 6th (18th) January 1881.—*Author*.

† Report from Lieutenant Krishtopenko, No. 14, dated 13th (25th) January 1881.—*Author*.

‡ Report from Captain Golovkoff, commanding the column, No. 8, dated 19th (31st) January 1881.—*Author*.

§ Instructions to Colonel Artsishevski, No. 355, dated 17th (29th) January 1881, and to the Officer Commanding Lines of Communication, No. 37, dated 24th January (5th February).—*Author*.

|| Diary of II Section of Staff of Trans-Caspian Force, 1880, No. 27, Part I, page 187.—*Author*.

¶ Instructions to Colonel Artsishevski, No. 623.—*Author*.

being supplied with provisions, &c., by Volkoff without touching those coming from Persia.

All the supplies were delivered perfectly successfully in the supply-depôts of the Akkál *oasis* and without any loss, all those from the Shirván magazine being brought to Askhabád and those from Bujnurd to Gok-Tapa. The last convoy from Persia was sent off on the 14th (26th) May 1881, after which the individuals who had superintended the purchase returned to Askhabád.

After a five months' supply for its garrison had been put into Gok-Tapa, all the rest of the Persian supplies arriving at that place were forwarded to Askhabád on hired Tekke camels.

The Persian supplies sufficed for the troops at Gok-Tapa and Askhabád (4,000 men and 2,200 horses) till October 1881. They were of special value, because by the time Gok-Tapa was taken our camel transport had almost ceased to exist and the railway only ran to 64 *versts* (42½ miles) from the sea, and the 400 4-horsed wagons asked for by the Commander of the Expedition from the Caucasus only arrived in April.

In all, the following supplies had been purchased in Persia and delivered in the supply-depôts at Gok-Tapa and Askhabád :—

				<i>Puds.</i>	Pounds.	Cwt.
Wheat flour	...	...	...	41,810	22	13,379·36
Barley	...	...	...	99,576	33	31,864·56
Rice groats	...	...	...	1,371	6	438·8
<i>Ghi</i>	...	...	...	527	13	168·62
Peas	...	...	...	536	...	171·52
Lentils	...	...	...	297	17	95·2
Ground-pepper	...	...	...	14	...	4·48
Pepper-corns	...	...	...	22	9	7·2
Salt	...	...	...	1,437	...	459·84
Garlic	...	...	...	186	...	59·52
Beetroot	...	...	...	48	...	15·36
Carrots	...	...	...	16	...	5·12
Potatoes	...	...	...	57	...	18·24
Total				1,45,919	20	46,687·82

For the purchase of supplies in Persia there had been issued at different times—

- (1) 20,387 half-Imperials (=104,993 *roubles* 5 *kopecks* in coin).
- (2) 11,979 *roubles* in bank silver.
- (3) 150,036 *roubles* 95 *kopecks* in credit notes.
- (4) 4,250 *tománs* in Persian *kráns* (=12,750 *roubles* in coin).

Total 2,79,750 *roubles* at normal prices (£27,000 — £30,000). Of this sum, there had been expended—

- (1) 19,387 half-Imperials = (on being changed into *kráns*) 126,854 *roubles* 38 *kopecs* in coin, as the half-Imperial fetched from 6 *roubles* 30 *kopecs* to 6 *roubles* 60 *kopecs* in coin and on an average 6 *roubles* 54½ *kopecs*. From the exchange of half-Imperials into Persian *kráns*, Government gained 27,011 *roubles* 33 *kopecs* in coin.*
- (2) 7,170 *roubles* in bank silver, which were sold for 8,170 *roubles* in coin. Thus here also Government gained 1,000 *roubles* in coin.
- (3) 148,148 *roubles* 5 *kopecs* in credit notes. Of this sum, 13,764 *roubles* 84 *kopecs* were expended in credit notes and the remaining 134,383 *roubles* 21 *kopecs* were changed into *kráns* at very various rates of exchange (from 3 *roubles* 63 *kopecs* to 4 *roubles* credit for the *tomán* of 3 *roubles* in coin), the average being 3 *roubles* 89½ *kopecs* per *tomán*.† In all there were received 34,500 *tománs* 8 *kráns* 18 *shai*. Thus Government lost 30,880 *roubles* 54 *kopecs* on the exchange of the credit notes.
- (4) 4,250 *tománs* in Persian *kráns*.

28,011 *roubles* 33 *kopecs* having been gained on the exchange of gold and bank silver, and 30,880 *roubles* 54 *kopecs* lost by Government on that of credit notes, the total loss in exchange was 2,869 *roubles* 21 *kopecs*. Thus, owing to the favourable rate of exchange on gold and bank silver, our credit notes were made almost equal in value to *roubles* in coin. In further accounts, therefore, the *rouble* is taken as having the same value whether paid in coin or in paper. The total amount expended by Colonel Grodekoff's commission was therefore 267,911 *roubles* 10 *kopecs*.

Besides the above sums, there were also expended during the operations 14,371 *roubles* 36 *kopecs*, as follows:—

- (a) By Major Kusoff, at Astrakhán, 5,787 *roubles* 91 *kopecs* for the purchase of 68,159¾ *arshins* (159,039½ feet) of sack-cloth for sacks; and
- (b) by Staff-Captain Erdeli at Baku, 2,789 *roubles* for the purchase of 33,000 *arshins* (77,000 feet) of sack-cloth, thread, paint for marking the sacks, scales, weights, &c., and 5,794 *roubles* 45 *kopecs* in the purchase of presents.

Thus, there were expended in all—

	162,519	<i>roubles</i> 41	<i>kopecs</i> in credit notes.
	99,843	" 5	" in gold.
	7,170	"	" in bank silver.
	12,750	"	" in Persian <i>kráns</i> .
Total	282,282	" 46	"

Deducting from this the expenses not connected with the preparation of supplies in Persia,‡ a sum of 10,801 *roubles* 25 *kopecs*, we

* 19,387 half-imperials = (at 5 *roubles* 15 *kopecs*) 99,843 *roubles* 5 *kopecs* in coin and at the current rate in Persia (6 *roubles* 54½ *kopecs*) 126,854 *roubles* 38 *kopecs* in coin.—*Author*.

† A *krán* was worth on an average 38·92 *kopecs* in credit notes.—*Author*.

‡ 1,250 *tománs* handed over to the Commander of the Lutfábád force, 1,716 *tománs* expended in the purchase of cattle which were handed over to the meat contractor Gromoff, and 634 *tománs* 4 *kráns* 15 *pul* expended for the supply of the 6th *salmia*, Taman Cossacks; total 3,600 *tománs* 4 *kráns* 15 *pul* (10,801 *roubles* 25 *kopecs*).—*Author*.

get as the total cost of the supplies bought in Persia 271,481 roubles 21 kopecks.

This sum was distributed as follows :—

I. Purchase of supplies and transport of them to the supply depôts of Gok-Tapa and Askhabád :—

Purchase of—

- (1) 41,810 *puds*, 22 pounds of wheat flour, 18,829 *tománs* 7 *kráns*, or 1 rouble 35 kopecks a *pud* (36·1 lb.).
- (2) 99,576 *puds*, 33 pounds of barley, 37,382 *tománs* 3 *kráns*, or 1 rouble 12½ kopecks a *pud*.
- (3) 1,371 *puds*, 6 pounds of rice groats, 1,426 *tománs* 5 *kráns* 8 *shai*, or 3 roubles 12½ kopecks a *pud*.
- (4) 1,437 *puds* of salt, 50½ *tománs* 2 *kráns* 4 *shai*, or 1 rouble 3 kopecks a *pud*.
- (5) 527 *puds*, 13 pounds of *ghi*, 1,752 *tománs* 4 *kráns*, or 9 roubles 99 kopecks a *pud*.
- (6) 556 *puds* of peas, 212 *tománs* 2 *kráns*, or 1 rouble 15 kopecks a *pud*.
- (7) 297 *puds*, 17 pounds of lentils, 105 *tománs* 6 *kráns*, or 1 rouble 6½ kopecks a *pud*.
- (8) 22 *puds*, 9 pounds of pepper-corns, 101 *tománs* 1 *krán*, or 37 kopecks a pound (·9 lb. English).
- (9) 14 *puds* of ground pepper, 39 *tománs* 6 *kráns* 8 *shai*, or 8 roubles 49 kopecks a *pud*.
- (10) 57 *puds* of potatoes, 36 *tománs* 8 *kráns*, or 1 rouble 94 kopecks a *pud*.
- (11) 186 *puds* of garlic, 35 *tománs* 5 *kráns*, or 57½ kopecks a *pud*.
- (12) 64 *puds* of beetroot and carrots, 17 *tománs* 8 *kráns* 5 *shai*, or 84 kopecks a *pud*.

The prices of supplies were much higher than those current in the bazaars. At that time, when the bazaar price of barley in the *vilayat* of Kuchán was 18 *kráns* for the Shirván *khárvar* (22½ *puds*), and for flour 24 *kráns* for the same amount, we had to pay 30 *kráns* for an Imperial *khárvar* (18 *puds*) of barley or flour at Shirván, and 33 *kráns* for a *khárvar* of barley at Takhta-i-Rabát and Yangi-Kala. This was because Shuja-ud-Daula had forbidden private people to sell grain for our supply-depôts and took the whole supply upon himself as narrated above, naming any price that he pleased. We might have demanded 50 *kráns* a *khárvar* and we should have had to give it. This was the price which a deputation of inhabitants of Shirván had requested the *Ilkháni* to ask from the Russians in consequence of the wish expressed in the letter of the Armenians offering to buy up all the grain at this figure. If Shuja-ud-Daula had learned that any one was selling barley or flour to the Russians, that person's money would have been confiscated. As for Bujnurd, the prices at which grain was to be sold to the Russians were fixed by the *Ilkháni*, Yár-Muhammad-Khán, at 28 ½ *kráns* a Bujnurd *khárvar* (22 *puds*, 29 pounds) for flour, and 25 *kráns* a *khárvar* for barley.*

* Here we suffered hurt by the high prices proposed by our agent, Lieutenant Zeinál-Beg, to the *Ilkháni* in 1879. The latter insisted on those being adhered to, and it was only with great difficulty that he was induced to abate them a little.—*Author*.

The transport of supplies to the supply-depôts of the Akhál oasis was carried out at prices fixed by mutual agreement with the *chervadárs*. At Shirván 17 *kráns* for 8 *puds* and 19 *kráns* for 10 *puds*,* and for Shuja-ud-Daula's mules 21 *kráns* for 8 *puds* and 24 *kráns* for 10 *puds* were paid. This increased payment was made for the *Ilkhánu's* mules, so that he should not try to coerce our *chervadárs*. At Bujnurd, before the capture of Gok-Tapa, the prices were:—To influential people 5½ *kráns* for 4 *puds* and to others 4½ *kráns* for the transport to Khálva-Chashma. As the *chervadárs*, however, refused to go on to our force during the siege, our bargain with them was cancelled, and after the capture of Gok-Tapa we began to pay 8 *kráns* for 4 *puds* to Gok-Tapa to all without distinction. Afterwards, when the supply of transport far exceeded the demand, we succeeded in reducing the price of transport to 7 *kráns* a sack.

For the transport of the supplies to the supply-depôts of Gok-Tapa and Askhábád, 88,651 *roubles* 20 *kopecks* were expended. Consequently the transport of a *pud* cost 6¼ *kopecks* for a mean distance of about 120 *versts* (80 miles) or ½ a *kopeck* per *verst* and per *pud*.

II.—Purchase of sack-cloth, baize, and coarse calico, and preparation of sacks.

In all 396,760 *arshins* of cloth of all sorts (925,773 feet) were purchased at a cost of 41,620 *roubles*. Out of 367,130 *arshins* (856,603 feet) were made 70,787 ordinary sacks and the rest of the cloth was partly handed over to the Askhábád magazine and partly spoiled in the custom-house at Gaz. In addition to the above, 7,225 sacks were bought at Bujnurd, Mashad, and Shirván.

Thus, in all, 78,012 sacks were bought or prepared at an outlay of 42,045 *roubles*, giving a mean price of 53·9 *kopecks* per sack. This high price is explained by the great distances to which the cloth had to be carried (from Gaz to Shirván 300 miles, from Mashad to Shirván 200 *versts* 133½ miles).

III.—Purchase of woollen *chuváls*.

In all 2,996 *chuváls* were purchased at a cost of 4,040 *roubles*, making the price of each *rouble* 35 *kopecks*. The *chuváls* obtained were expensive because everywhere means of carrying supplies were being bought up, of all descriptions and at any cost.

The cost of the sacks and *chuváls*, including both those and for transport and those returned into store (43,827 *roubles* 70 *kopecks*) raised the price of every *pud* of supplies by 31 *kopecks*; thus—

			Cwt.	Roubles.	Kopecks.
A <i>pud</i> of flour	"	1	66
" groats	"	3	43½
" barley	"	1	43½
" salt	"	1	34
" peas	"	1	46
" lentils	"	1	37½
" <i>ghi</i>	"	10	30
" ground pepper	"	8	80
" garlic	"	...	88½
" beetroot	"	1	15
" potatoes	"	2	25
A pound of peppercorns	38

* The loads were of two kinds, in sack-cloth or cotton sacks at 4 *puds* and in woollen *chuváls* at 5 *puds*.—*Author*.

These were therefore the final prices per *pud* with all expenses of packing and delivery in double sacks or in ordinary *chuvds* at the supply-depôts of Gok-Tapa and Askhabád.*

IV.—Purchase of 720 felts for a sum of 1,925 *roubles*.

These were used to cover the bales.

V.—Extraordinary expenditure, 25,956 *roubles*.

VI.—Cost of presents, 5,794 *roubles*.

The total losses on the preparation of supplies in Persia were as follows:—

			<i>Roubles.</i>	<i>Kopecks.</i>
1. Flour, 42·56 cwt.†	...	...	70	68
2. Barley, 62·24 cwt.	...	...	74	50
3. <i>Ghi</i> , 43·2 cwt.‡	...	...	109	45
4. Lentils, 3·84 cwt.	...	...	0	45
5. Ground pepper, 8 cwt. §	...	...	70	50
6. Salt, 4·8 cwt.	...	...	12	70
7. Potatoes 13 28 cwt.||	...	...	29	5
8. 369·6 cwt. of barley not received at Shirván¶	...	...	576	60
9. Different supplies ditto Bujnurd	...	...	16	42
10. Earnest-money to <i>cherradders</i> lost	...	...	499	10
11. 4,034 sacks lost	...	...	2,174	32
12. 11 woollen <i>chuvds</i> lost	...	...	14	85
13. 3 felts delivered unserviceable	...	...	8	1
14. 1,722 sacks delivered unserviceable	...	...	928	15
15. 5,770 <i>arshins</i> of sackcloth spoiled at Shirván	...	...	600	7

Total 5,104 *roubles* 85 *kopecks*, being 1·8 *per cent.* on the sum of 271,481 *roubles* 21 *kopecks* expended for supplies.

When General Skobeleff was informed of the results of the preparation of supplies in Persia and their delivery in the supply-depôts of the Akhál oasis, he wrote to the Chief of the General Staff (St. Petersburg):—

“It appears that the operations in Persia have been as extensive as those on the lines of communication, with this difference that on the latter everything was ready, flour oats, sacks, ropes, while in Persia everything down to the thread had to be found and bought. There were found and bought 146,000 *puds* of supplies, and 300,000 *arshins* of cloth, which were made into more than 60,000 sacks, and all that in two months! On the 23rd September (5th October) General Grodekoff arrived with his assistants at Bujnurd and on the 25th

* The cost of a *pud* of sea rations at the prices paid by the Intendance, without transport, from 1st (13th) January to 1st (13th) July 1881 were—

	<i>Cwt.</i>	<i>Roubles.</i>	<i>Kopecks.</i>
Wheat flour	...	2	80
Rice groats	...	2	55
<i>Ghi</i>	...	11	40
Cabbage for <i>Kodss</i>	...	1	59
Pepper	...	12	50
Garlic	...	1	35
Salt	64
Potatoes (from 1st (13th) July 1880 to 1st (13th) January 1881)	95
A <i>chetvert</i> (5·7 bushels) of oats cost	...	5	98
Of rye flour with packing	...	7	95
Of buckwheat groats with packing	...	11	75

(Report from Acting Intendant Khojáyeff, No. 4635, dated 21st October (2nd November) 1880.)—*Author.*

+ (If this quantity, 40 cwt. were lost on the wheat by cleaning and winnowing.—*Author.*

‡ Loss from residuum, as on inspecting a skin of it a mixture of 9 lbs. of salt was found.—*Author.*

§ This loss was caused by the drying of the pepper bought wet.—*Author.*

|| Dried.—*Author.*

¶ The money had been paid beforehand.—*Author.*

November (7th December) everything was ready. The labour was really superhuman. As a small example of it, I may mention that in Persia, rough ground pepper is sold by the piece. You may imagine what a work it was."

"The timely and very bold formation of a supply-depôt at Garmáb enabled us to take advantage of it directly after the capture of Gok-Tapa, when our transport was at an end, and it was impossible to clear out the depôt in our rear."

"This mass of supplies was next moved into the supply-depôts of the Akhál *oasis* on transport hired all over the district between Sháh-Rud and the boundaries of Seistán. In transport there was not an ounce of loss, as documents will show. Not one atom was rejected by the receiving boards, on which were officials of the Field Control. What a difference from the state of affairs on the lines of communication where losses, evaporation, and leakage caused us losses of hundreds of thousands of *roubles*."

"The main products were delivered in the magazines of Gok-Tapa and Askhabád at the following prices:—

				Roubles.	Kopecks.
Flour per <i>pud</i>	...	...	...	... 1	82
Barley	...	...	...	... 1	53
Salt	...	...	...	... 1	44
<i>Ghi</i>	...	...	...	... 13	64
Groats	...	...	...	... 3	27*

including the price of double sacks and all expenses of storage, &c. At this time, these products were costing at Gok-Tapa:—

				Roubles.	Kopecks.
Rye flour per <i>pud</i>	...	...	...	... 6	70
Oats	...	...	...	... 6	65
<i>Ghi</i>	...	...	...	.. 15	49
Salt	...	...	...	... 6	12
Groats	...	...	...	... 6	24

Comparing these prices with those of the Persian supplies, we find that on barley alone, of which 99,607 *puds* were prepared, the Government saved 512,000 *roubles*. The total saving is 560,965 *roubles*. If to this we add a number of new sacks, which will be used as linen for the troops, woollen *churals* which have not been worn out, and the best Turkumán felts, which remain as a gain, the above saving will be increased to 600,000 *roubles*. It will be no exaggeration to say that the Persian operation is the most brilliant feature of the Akhál-Tekke campaign, although the persons carrying it out had no commercial training."†

* As seen above, the cost of this product was much less. General Skobelev had not then all the results of the expedition before him.—*Author*.

† Letter from General Skobelev to General Obrucheff, dated 4th (16th) August 1881.—*Author*.

CHAPTER XVIII.

General review of the victualling of Russian troops during the steppe campaigns before the Akhál-Tekke Expedition—Composition of the Intendance and Field Control of the Trans-Caspian Field Force—Establishment of receiving boards at Astrákhán and on the west coast of the Caspian—Storage of provisions, grain, hay, ship's rations, and packing and covering materials—Supply of meat—Orders for the rationing of the troops—Operations of the Field Control (1) on receiving boards; (2) in verifying contents of supply-depôts; (3) in medical establishments; and (4) in inspecting transport animals and the transport of supplies—Working of the preliminary control as regards demands for money, and its results.

ASIATIC conquerors have freely traversed the desert and led their troops where small European forces can only penetrate with difficulty; and this was because the campaigns of such hordes had much in common with the nomadising of the present day. An Asiatic has a special power of bearing thirst, heat, insufficiency of food, and, generally, all the hardships and inconveniences of nomad life. Cattle, the chief food of Asiatics, followed in rear of those armies; and it is a known fact that, when Taimur was preparing for his campaign against China, he gave orders for 30,000 female camels to be taken with the army so as to supply milk for the troops. A nomad does not despise anything that comes in his way, and a hunt after wild beasts often supplied food for those armies. To enable his army to supply itself by the chase, Chinghiz-Khán forbade wild fowl to be killed between March and October, so that they might not be annihilated. The horses of Asiatics, like their masters, bear want of water and food with ease. From all these causes, Asiatic armies had very little baggage, which much facilitated their movements; and in the descriptions of Asiatic campaigns which have been handed down to us, we find no mention of their armies having experienced such want and hardship as to have an influence on the success of the campaign.

Quite otherwise have been the experiences of European troops who have carried on war in the steppe. The failure of Alexander the Great in the deserts of Hedrosia and Karamania is well known, and we have not got to go far back to mention the sufferings and privations of the Russian troops in the campaign against Khiva in 1873. Here the truth became evident that what is possible for an Asiatic is not possible for an European, unless the latter trains himself to feel as little as possible the loss of those various comforts to which he is accustomed in a civilized country. In consequence, the equipment of a force for service in the steppe is a very complicated and very difficult matter. Here nothing is too trifling;—everything is important; everything is, as it were, indispensable. In the steppe nothing is found; and if there is something wanting in the equipment of the force when it leaves its base, that thing can never be made good. It may happen that in the steppe the lines of operation are 700 or 800 miles long, and communication with the base is only occasional. Therefore, the force must make up its mind in the fullest sense of the word to do without help from its base. Every loss in the force is a real loss, which it is impossible to make good; and if at any time every man has to be counted, it is in steppe campaigns. Therefore, the preservation of the health of the men is a matter of the first importance.

From what has been said above we may easily conclude that the baggage train of a force sent into the steppe is very large. The Orenburg force in the Khivan Expedition of 1873 took with it 37,800 gallons of water; and consequently for water alone 1,460 camels were required. An English force operating in the desert on the western frontier of Hindustán, 8,802 combatants strong, had 80,000 horses. Hence it follows that a campaign in the desert, even if only the most necessary articles are taken, is a very expensive matter, and nowhere is the practice of economy so hurtful as in the preparation of an expedition for a steppe campaign. Its consequences may show themselves during the campaign in the shape of sufferings of the men from heat and thirst, or afterwards, on the conclusion of it, in the large number of deaths.

The experience of the Khivan campaign taught us how to equip a force for the desert, and how to get along in it. On the termination of that campaign, a special committee of officers, who had taken part in it and in the preliminary reconnaissances, was formed in the Caucasus, and they worked out a scheme for the supply of a force and its equipment.

From the first occupation of Krásnovodsk in 1869, ship's rations were issued to the troops serving in Trans-Caspia. Each man received *per diem* 9 lb. of meat, 1·8 lbs. biscuit, 4·5 lb. groats, 7½ oz. cabbage for *kráss*, 6 oz. flour, 7·5 oz. *ghi*, 1·95 oz. salt, 0·24 oz. pepper, 0·24 oz. laurel leaves, 5 oz. onions, 1·5 oz. garlic, 5·12 oz. barley and wheat, groats or peas and French beans, and one measure (*charka*) of brandy, with five measures of vinegar a month.

Instead of fresh meat, salt meat, and instead of *ghi*, tallow, was issued in the same quantities.

The Caucasus authorities, after considering the conclusions of the above-mentioned committee, expressed the following opinion on the subject of the supply of the troops, which was acted upon generally in the subsequent reconnaissances and operations in Trans-Caspia.

Fresh meat, which is the chief means of keeping up the health and strength of men, should always be issued, and in quantity not less than 9 lb. (1 lb. Russian). For this purpose sheep for slaughter should always follow a force in sufficient number, if they cannot be bought during the campaign. Horned slaughter cattle cannot follow a force in very hot weather on account of the insufficiency of water and of forage, which gets burnt up in summer. Sheep can go for some days without water, can be fed on the scantiest of herbage, and can always follow a force. They, however, rapidly deteriorate on a campaign, and lose much in weight,* and therefore it is necessary to weigh the animals as often as possible during halts before issuing them to the companies. The meat cannot be always weighed, as much time is required for this operation. In the Mangishlák force this was made a rule for the issue of meat to the troops. The sheep were issued to the troops entire, and a special board divided them into three categories,—large medium-sized, and small. Each corps sent in a requisition to the superintendent of cattle, who, according to the number of men in the corps, issued a corresponding number of sheep of the different categories. This procedure

* In the *Russki Invalid*, No. 25 of 1874, were some interesting remarks by Professor Lesgaft, in which it is mentioned that a *pud* of good meat off a well-fed animal contains 40 per cent more nourishment than an equal weight of meat from an animal which has been marched a long distance. A table is also given showing that the flesh of slaughter cattle, after the animals have been driven, from which they inevitably suffer, contains much less nourishment, *e.g.*, the flesh of a starving sheep contains 58 per cent., that of a half-starving one 50 per cent., that of one which has been well-fed 40 per cent., and of a very fat sheep 33 per cent. of water, *i.e.*, the fat lost during a march is converted into water in the body.—*Author*.

worked very well when the troops were halted at Kindarli,* and in the first days of the march; but when the sheep had gone a few hundred *vershs*, they diminished considerably in weight, and therefore the issue to each corps, in proportion to its strength, of a certain number of sheep, calculated according to their weight at Kindarli, was very unfavourable for the troops.

The issue to the troops of money for the purchase of meat during a campaign should not be permitted, because, firstly, each small detachment finds it very difficult to buy sheep for itself; secondly, the men in their desire to economise eat less meat than is required to keep them in health; and, thirdly, it is much easier to look after one large than a number of small flocks. Therefore the supply of slaughter sheep to all the troops is one of the most important duties of the commander of a force. All other supplies depend entirely on the means of transport available; but sheep do not require transport, and do not fall behind the troops even in forced marches. In the event of the troops having to husband the other supplies carried with them on account of insufficiency of transport or delays in the march of the supply columns, the other rations may be replaced by an increase of the meat ration. For this reason flocks of sheep should follow a force in sufficient number to give every man 1·55 lbs. of meat daily; and this also guards against insufficiency in consequence of a large number of sheep having been lost or becoming tired out. In this last case, and when the troops have to make specially long marches, it is very useful to have preserved meat with the force.

The issue of biscuit (1·8 lbs. a day) is perfectly sufficient; but, taking into consideration that biscuit soon gets crumbled and broken, thus causing great loss of weight, the ration should be increased to 2·06 lbs. per man *per diem*. In order to further diminish losses, biscuit should be carried in strong cloth sacks, and these again should be tied up in bales with matting. To carry biscuit in bales covered with matting only is quite impossible.

During the advance of the Mangishlák column on Khiva, biscuits were carried in matting bales. These soon got broken, and the loss was so great, that two weeks after the force advanced from Kindarli the ration of biscuit was ordered to be reduced from 1·35 lbs. to ·9 lb. a day. As the column neared the *oasis*, this quantity was constantly diminished, so that finally the men received ·72 and even ·45 lb. a day only.

The existing ration of groats is amply sufficient. As *għi* is usually carried in barrels, which always leak a good deal, the loss of it is usually great, and moreover it quickly gets bad from heat. It was, therefore, considered desirable that it should be conveyed in hermetically closed tin boxes; and to prevent it from spoiling when the boxes were opened, the latter were made of such size as to hold a day's allowance for a certain unit, *e.g.*, a half company or a company.

It is very necessary to have dried cabbage for *křáss* as a preventative against scurvy and other diseases. It should not, however, be dried long before a campaign, as it soon spoils and becomes unfit for use. It is also necessary that the troops should have onions and garlic also, in the proportion of ·675 oz. a day of the former, and ·225 oz. a day of the latter per man.

Vinegar is an article very difficult to transport, and, therefore, it should be replaced by fruit acids. In the Krásnovodsk force, the issue of these was fixed at ·265 oz. a day per man. This article evaporates rapidly in hot weather.

* The gulf of Kindarli is on the east coast of the Caspian, and it was here that the Mangishlák force was assembled for the campaign against Khiva.—*Author*.

Thus, in the Krásnovodsk force in ten months, out of 85·2 cwt. of fruit acids, 7·76 cwt. evaporated. Considering the great tendency to evaporation of this article, and the want of proper places to store it in, the committee considered that this loss was insignificant compared with what it might have been. It is, therefore, necessary that the acid should be made with a smaller proportion of water, and that in consequence it should not be purchased by weight, but by volume like grain.

As fruit acid has not only to serve as a corrective for food, but also to improve the water, the issue of it should be increased to 3·75 oz. per man *per diem*.

The scale of issue of pepper, laurel leaves, and flour for stirabout is sufficient. The quantity of salt may be reduced from 1·55 oz. a day to 1·5 oz.

As regards spirits, experience has shown that troops can do without it without any bad effects upon their health. The troops of the Mangishlák and Turkistán columns had no spirits at all in the Khivan expedition of 1873, and on both forces uniting before Khiva, General Kaufmann gave orders that all spirits in the possession of sutlers were to be sealed with the seals of the commanders of columns, and that no one was to sell spirits to the troops. Spirits only arouse a man's strength and bodily organism temporarily, and afterwards make him lazy and sleepy; and therefore they should altogether be excluded from the men's rations. It is, however, necessary to have a supply of spirits for issue after a severe and tiring march, or after a cold bivouac; and 6 measures per man per month should be allowed in autumn, and only 2 in spring and summer, it being, however, understood that the troops have no right to demand it, and that its issue to the men can only be ordered by the commander of the column after consultation with the medical officer, and as a medical comfort.

The experience of the Khivan expedition and the reconnaissances preceding it showed, in the most striking manner, how beneficial to the men is the use of tea. Tea prevents and stops disorders of the stomach, quenches thirst, and corrects water. Tea is an invaluable thing in the steppe; but the issue of tea in all the columns sent against Khiva was too restricted compared with its great utility. When used in sufficient quantity (not less than twice a day), the allowance per man and per month should not therefore be less than 45 lb. of tea and 2·7 lbs. of sugar.

After some changes and additions at the time of the expedition of 1879, the actual scale of ship's rations for troops in Trans-Caspia was:—9 lb. meat, 1·2 oz. preserved vegetables, 4·8 oz. rice, 6 oz. flour for stirabout, 75 oz. *ghi*, 1·5 oz. salt, 0·24 oz. pepper, 0·24 oz. laurel leaves, 6 oz. onions, 15 oz. garlic, and 75 oz. fruit acids *per diem* per man. From 1st (13th) May to 1st (13th) September per 100 men *per diem*:—9 lb. tea, 2·7 lbs. sugar, and 2 half-measures of spirits per man per month. From 1st (13th) September to 1st (13th) May, tea 3 lb., sugar 9 lb., and spirits 4 half-measures per man per month.

This ration was several times modified by order of the General Commanding. The issue of meat was sometimes increased to 1·35 lbs. per man *per diem*, and that of sugar to 1·8 lbs. and even to 2·7 lbs. per month per man, the spirit ration being sometimes done away with altogether, and sometimes increased to 4 half-measures per man per week, &c.

The above rations were to be issued to the officers of the force at the same rate as to the men.

In 1879, when General Lázareff was appointed Commander of the Akhál-Tekke expedition, there was formed, on the 17th (29th) May, the Intendence

of the force. It consisted of an Intendant, an official for special service, a treasurer, a *chef de bureau*, a book-keeper, and two assistants to the *chef de bureau*, who were to perform the duties of superintendents in the event of large temporary supply-depôts being opened. The insufficiency of this staff was evident from the very first. Delays were caused both in the issues of money to the troops and in the giving out of orders, and combatant officers had to be appointed superintendents of magazines. The Intendant of the force, Lieutenant-Colonel Deinyakin, reported to the Intendant of the district that, after one official had died and two had fallen sick, he was left with one only; and while correspondence was going on as to the replacement of the deficient officials by others, the expedition came to an end.

On the arrival of General Skobelev, the Intendence consisted of an Intendant, Major Yepifanoff, an official on special service at Duz-Olum to look after the transport of stores, a *chef de bureau* (on the sick list), a book-keeper, and two assistants to the *chef de bureau*. Actually, including the Intendant, there were four persons carrying on all the duties of the Intendence.* The Intendant himself met General Skobelev at Petrovsk on his way to Tiflis, whither he was going on short leave. At General Skobelev's request he returned to Trans-Caspia, and remained with the force till the 28th June (10th July) when, as his health was completely broken down, he went on leave and did not again return to Trans-Caspia.

The new establishment of the Intendence, confirmed on the 12th (24th) May 1880 by the Commander-in-Chief of the Army of the Caucasus, consisted of:—one Intendant (with the rights of a chief superintendent of supply-depôts), 2 officials on special service, 2 *chef de bureau*, 2 assistants to the latter, 1 book-keeper, 1 assistant book-keeper, 1 treasurer, 1 interpreter, and 4 officials to take over the duties of superintendents of newly opened magazines. To these must be added the superintendents of depôts already existing in the country, which brought the total number of Intendence officials up to 20. Afterwards, on the Commander of the Expedition representing the insufficiency of this staff, 6 more officials were sent to Trans-Caspia for duty with the convoys (12 of the Intendence and 4 from the army), who, however, only arrived when the concentration of supplies, not only at Bámi, but also at Samurskoye, was completed. There were in all 22 conductors.†

To carry on more expeditiously the work of supplying the troops and issuing to them *matériel* of every description, General Skobelev ordered the Intendence to be divided into two sections,—one with the advanced force, and the other at Krásnovodsk. The sphere of action of the section of the advanced force was bounded by a line from Duz-Olum to Bámi, while the Krásnovodsk section managed the work on the Micháelovsk line, the Intendence of the force being in charge of the section from Chikishliár to Duz-Olum.

As chiefs of sections were appointed,—with the advanced force, Lieutenant Ostroumoff and at Krásnovodsk Official Mitkevitch. The Intendant of the force, Major Yepifanoff, was with General Skobelev's Staff, and the charge of the Intendence at Chikishliár was entrusted to Official Mirets.‡

* Reports from the Intendant of the Force, Nos. 2653 and 3633, dated 17th (29th May) and 3rd (15th) August 1880.—*Author*.

† Telegram from Bikhorst to General Skobelev, No. 4673, dated 1st (13th) December 1880.—*Author*.

‡ Report of the Intendant of the Force, No. 155, dated 23rd June (7th July) 1880.—*Author*.

Major Yepifánoff had many difficulties to contend against in consequence of the inefficiency of the officials and the careless performance of their duties.*

After the departure of Major Yepifánoff from Trans-Caspia, *Voiskovói Starshíná* Karitski of the Poltava Cossacks was appointed acting Intendant of the force, and this post he held for 1½ months. In granting Yepifánoff sick leave, General Skobeleff had requested the authorities in the Caucasus to send him in his stead another man "in good health, who could do his 80 *vershs* (53½ miles) a day, and be able to work after that." The new Intendant, sent on the 15th (27th) August, did not quite answer to that description, and was consequently sent away after two months.

After him, on the 14th (26th) October 1880, the Commander of the Expedition, in appointing College Assessor Khojaeff† acting Intendant, had requested the Chief of the Staff of the Army of the Caucasus to send him an Intendant perfectly competent in his work. It was then proposed to General Skobeleff to choose an Intendant from his own troops; but this he could only do after the capture of Gok-Tapa, and therefore Khojaeff continued to perform the duties till the 14th (26th) January 1881, when Colonel Kozelkoff, of the 74th (Stávropol) Infantry Regiment was appointed to the post.‡ Soon after the departure of the Temporary Commander of the Troops for St. Petersburg, Colonel Kozelkoff went on sick leave, and was succeeded by Major Pavlenoff, battalion commander of the Crimean Regiment.

Thus the Trans-Caspian Field Force had five Intendants within a year.

In the first volume of this work, mention has been made of the great importance attached by General Skobeleff to a Field Control being attached to his force.

The regulations for the Field Control with the Trans-Caspian Field Force were confirmed by the Emperor on the 5th (17th) May, and were drawn up on the basis of the regulations of the 21st February (5th March) 1877 for the Field Control of a detached corps, with the following alterations.

The Control consisted of a Chief Controller, two Controllers, and three Assistant-Controllers, the number being liable to change, if required, by the Imperial Controller, in communication with the Commander-in-Chief of the Army of the Caucasus.

The regulations of the 21st February (5th March) 1877 as to the duties of a Corps-Controller applied to the Chief Controller of the Field Control, and those laid down for a Chief Controller to the Controllers.

The functions of the officials of the Field Control and their relations to the Military Staff were laid down in special instructions issued by the Imperial Controller in communication with the Commander-in-Chief of the Army of the Caucasus.§ The Temporary Commander of the Troops was authorized to make such partial changes in these instructions as experience showed to be necessary, bringing them to the notice of the Imperial Controller and of the Commander-in-Chief of the Army of the Caucasus.

* Orders to the Intendancy of the Trans-Caspian Field Force, No. 19, dated 31st May (12th June) 1880.—*Author*.

† General Orders, Trans-Caspian Field Force, No. 384, dated 14th (26th) October 1880.—*Author*.

‡ General Orders, Trans-Caspian Field Force, No. 23, dated 14th (26th) January 1881.—*Author*.

§ In Appendix 91 see Imperial approval, dated 5th (17th) May 1880, to the report of the Government Controller, and instructions regarding the Control Department with the troops operating in Trans-Caspia.—*Author*.

As Chief Controller was nominated, as requested by the Commander of the Expedition, Actual State Councillor Cherevanski, acting Chief Controller in Turkistán. He arrived on the east coast of the Caspian on the 8th (20th) June, and the other officials of the Control on the 28th May (9th June). Until his arrival the duties of Chief Controller were performed by College Assessor Kachurin, a member of the Temporary Control Committee appointed to settle up the accounts of the late expedition.

The number of Control officials fixed by regulation was seen from the very first to be insufficient. The progress of military and administrative operations required the presence of officials of the Control at Krásnovodsk, Chikishliár, and with the advanced force, as between these points took place the main movement of military stores, which required concentrated attention to the issue of supplies and *matériel* for transport, and their receipt at their destinations. In addition, at each of these points were a field treasure-chest, a supply-dépôt, and medical establishments and stores of various kinds, and at Chikishliár and Krásnovodsk the stores and supplies sent from the west coast of the Caspian had to be received. It happened not unfrequently that the presence of officials of the Field Control required two or three boards to be assembled within the 24 hours in one and the same place. In fact, on the officials of the Field Control rested all the responsibility of the verification of the accounts of the administrative departments on the lines of communication from the advanced force to Krásnovodsk and Chikishliár. The Commander of the Expedition therefore requested its establishment to be increased by one Controller, one Assistant Controller, and one clerk, expressing himself at the same time in the most flattering manner as to the efficiency of the Field Control.* This demand was granted; but it must be remarked that even this addition to the strength of the Field Control did not permit of its extending the sphere of its operations over the whole of the Atrak and Micháelovsk lines.

The articles required for the troops in Trans-Caspia were obtained by contract partly in the Caucasus and partly at Astrakhán.

To take over the supplies, forage, and materials prepared for Trans-Caspia from the contractors and Government furnishers, the Commander-in-Chief ordered boards to be formed at Astrakhán, Petrovsk, Lankorán, and Baku. The board at Astrakhán, the main collecting point of the greater portion of the food stuffs, had, as President, Major-General Dumánski, acting assistant to the Intendant of the Army of the Caucasus; and as members two Intendance officials, two officers of the Trans-Caspian Field Force, and one official each from the Control and Medical Departments. The choice of members was made by the Intendant of the Army of the Caucasus, the Commander of the Expedition, the Chief Controller, and the Inspector of the Medical Department of the Army of the Caucasus from among the officers and officials under their command. The period for which a board sat was counted from the day of the first arrival of supplies at a point to that of their despatch to Chikishliár or Krásnovodsk. As extra pay, there was issued to the President of the Board at Astrakhán 5 *roubles*, to those of boards at other places, 4 *roubles*, to members sent from other stations than the places of assembly of the boards, 3 *roubles*, and to those stationed in the place of assembly, 2 *roubles* a day.

* Telegram from General Skobelev to the Imperial Controller, No. 468, dated 25th July (6th August) 1880: "The Chief Controller has applied to your Excellency for an increase of the establishment of the Control. Being convinced of the great importance of the Control with the force, I unite my request to Cherevanski's. I am convinced that the Control is a most powerful help to me in my mission."—Report from Skobelev to the Chief of the Staff of the Army of the Caucasus, No. 1328, dated 4th (16th September) 1880.—*Author*.

The duties of these boards were the final receipt and approval of food-stuffs, forage, materials, &c., from the contractors and other persons, and the issue of receipts to them. The boards might call in the aid of experts. In the final acceptance of food-stuffs and materials, and in settling differences of opinion between the members, the president of the board at Astrakhán had the powers of a Circle Intendant, while the presidents of the other boards had to refer those matters, according to existing regulations, to the Circle Intendants. A special form of proceedings was to be drawn up on the receipt of each delivery of supplies, &c., on which, when signing it, each member had, in case of disagreement, to state his personal opinion. Each bale, bag, or package was to be marked in the presence of the board on being finally passed, and then a receipt signed by the president and the member acting as secretary, was to be given to the contractor.

On each batch of supplies being received, and on each shipload being sent off, the Commander of the Expedition and the Intendant of the Caucasus Circle were to be informed by telegraph.*

The boards assembled at Astrakhán on the 21st May (2nd June), at Baku on the 12th (24th May), at Lankorán on the 13th (25th) May, and at Petrovsk on the 18th (30th) July 1880, and were dissolved at Astrakhán on the 1st (13th) December, at Lankorán on the 6th (18th) December, at Baku on the 25th December (6th January), and at Petrovsk on the 9th (21st) December 1880.†

With the small establishment of the Field Control, it was impossible to have members of it on every board; so to make up for this, three Control officials were requested to be detailed from Russia, who were attached to three of the boards, while a member of the Field Control was attached to the Astrakhán board. The Imperial Controller thought it necessary to appoint Controller Kachurin, of the Baku Control Board, to superintend the operations of the members of the Control attached to the receiving boards, and the Chief Controller was ordered to put himself into communication with Kachurin as to establishing rules for the guidance of those officials. The following rules were drawn up:—(1) Any opinions or protests of the Control officials, not involving extreme measures being taken, are to be laid before Kachurin, who is to give his orders upon them; (2) Questions of greater importance requiring the orders of the Commander of the Expedition are to be laid before the Chief Controller for his orders; (3) Periodical notices of the progress of the work of receiving are to be sent to the Chief Controller and to the head of the Baku Control Board, who, at the end of each month, is to inform the Chief Controller of the decisions made by him in accordance with Rule I.‡

While not taking part, in the full sense of the word, in the actual work of receiving performed by the boards, the Control officials had to see to the inspection of the food-stuffs, their good quantity, and the due observance by the contractors of all the terms of their contract. As will hereafter be seen, the Control officials did not in all cases agree with the views and requirements of the other members of the boards, in the matter of inspecting and receiving

* Orders to the Circle Intendancy of the Caucasus Military District, No. 289, dated 30th April (12th May) 1880.—See instructions to the Receiving Committee in Appendix No. 92.—*Author*.

† Report of the measures taken by the Circle Intendancy of the Caucasus Military District for the supply of the troops in Trans-Caspia, 1879-80.—*Author*.

‡ "Notes on the operations of the Control on the receiving boards, on the west coast of the Caspian, for August 1880."—Diary of the Staff of the Trans-Caspian Field Force, No. 10 of 1880.—*Author*.

food-stuffs, and therefore sent in protests against the decisions of the boards together with their own opinions, and this method tended to improve the progress of the work of receiving stores.

On the formation, in the beginning of 1879, of a force for operations in Trans-Caspia, orders were given to provide the troops with 6 months' supply for 10,000 men from the 1st (13th) May 1879, as follows:—

1. Four months' supply of biscuit (69,950·4 bushels) and of groats (10,687·5 bushels) were to be prepared. To meet this demand, in addition to the supplies of biscuit at Petrovsk and Krásnovodsk (5,517·6 bushels) and of groats at Petrovsk (10,687·5 bushels), there were prepared the following quantities of biscuits:—

At Petrovsk, by the 1st (13th) July	...	...	34,200 bushels.
At Krásnovodsk, by the 1st (13th) July	...	...	11,400 "
At Baku, by the 1st (13th) May	...	...	17,100 "
Total	...	...	62,700 "

2. The remaining two months' provisions were to be purchased locally, biscuit being specially prepared if required.

Afterwards, when the force was assembled and military operations began, provisions were not only required for the remaining two months as had at first been proposed, but, as it had been settled that the force was to remain in Trans-Caspia for an indefinite period, it became necessary to provide the troops with supplies to last till 1st (13th) July 1880, and afterwards to 1st (13th) July 1881.

During this time, in addition to the above mentioned 4 months' supply, there were required for the full supply of the troops 163,058·5 bushels of flour, 148,399·5 bushels of biscuit, and 56,811·9 bushels of groats.

In the expedition under General Skobeleff's command, the issue of bread-stuffs was fixed for the troops at Krásnovodsk in the proportion of $\frac{2}{3}$ biscuit and $\frac{1}{3}$ flour, and for those on the Atrak line $\frac{1}{2}$ biscuit and $\frac{1}{2}$ flour. At this rate there would be required for one year for Krásnovodsk, for 7,500 men, 39,900 bushels of flour, 94,050 bushels of biscuit, and 19,665 bushels of groats, and for Chikishliár for 6,000 men, 64,980 bushels of flour, 37,050 bushels of biscuit, and 19,665 bushels of groats.

In the end of September 1880, as General Skobeleff was not perfectly certain that a lateral base could be formed in Persian territory, on the frontiers of the *oasis*, by Colonel Grodekoff, he thought it of the highest importance to have at Krásnovodsk, in addition to what had been already ordered, 32,000 cwt. of flour, biscuit, and groats, of which not more than $\frac{1}{2}$ was to be biscuit, and to have the whole brought over before the closing of navigation for sailing ships, as the steamers were occupied in the transport of railway stores.* It became therefore necessary to despatch an additional supply of 57,000 bushels of flour, 8,550 bushels of groats, and 19,950 bushels of biscuit. There were actually despatched from Astrakhán 25,459·1 bushels of flour and 3,596·7 of groats, and from Petrovsk 31,065 bushels of flour and 4,459 of groats. Biscuit was not sent over, as there had been already delivered on the east coast of the Caspian $\frac{2}{3}$ of a year's supply for the army of operations, which constituted an 8 months' supply for all the field troops.†

* Telegram from General Skobeleff to the Chief of the Staff of the Army of the Caucasus, No. 5742, dated 22nd September (4th October) 1880.—*Author*.

† Telegram from the Intendant of the Caucasus, No. 4162, dated 27th October (8th November) 1880.—*Author*.

In all there were despatched to Trans-Caspia up to the 1st (13th) July 1881, including the first 4 months' supply, 220,048·5 bushels of flour, 218,919·9 of biscuits and cakes, and 76,044·4 of groats.

Special payment was made for the preparation of biscuit at Baku,* Krásnovodsk† and Petrovsk,‡ flour being supplied. In all 161,919·9 bushels of biscuit were prepared at a cost of 68,055 *roubles*.

To ensure the supply of the troops up to the 1st (13th) July 1881, and to ensure the biscuit being prepared in the Cis-Caspian stations in time for its despatch to Trans-Caspia, cakes were ordered to be delivered to the receiving board at Astrakhán by contractors as follows:—at Rostoff on the Don, from the merchant Posokhoff 17,100 bushels of wheat cakes and from the merchant Alafuzoff at Kazán and Petrovsk 39,900 bushels of rye-cakes, total 10,000 *chetverts* (57,000 bushels) at 5½ *puds* (198·55 lbs.) a *chetvert* (5·7 bushels), at a price of 17 *roubles* a *chetvert*, total 170,000 *roubles*. The total expenditure in the preparation of the 218,919·9 bushels of biscuit and cakes was 238,055 *roubles*.

The flour required to make biscuit at Baku was taken from that furnished for delivery at the former Zardob store in 1880, to the amount of 28,500 bushels, and, in addition, from the same Zardob store 5,700 bushels of groats were sent to Chikishliár, and the contractor was paid 50 *kopecks* a *chetvert* for the delivery of these supplies (from Astrakhán) at Baku, in all 3,000 *roubles*. Afterwards, part of the flour from Petrovsk was delivered at Baku by the ships of the "Caucasus and Mercury Company," as also 17,100 bushels from the Salián magazine.

The flour and groats required for the troops in Trans-Caspia were sent to Krásnovodsk and Chikishliár from the Petrovsk store, and partly from the stores collected for the troops awaiting embarkation to join the force. Of the supplies to be delivered to the Petrovsk depôt in 1880, by the contractor Alafuzoff for despatch to Trans-Caspia, 111,452·1 bushels of flour and 29,246·7 of groats were ordered to be delivered to the receiving board at Astrakhán instead, 50 *kopecks* a *chetvert* (5·7 bushels) being deducted from the contract prices, as this was saved by their *not being taken* to Petrovsk.

The grain forage required for the Akhál-Tekke expedition in 1879-81 was procured, like other supplies, in the Cis-Volga Governments.

When the expedition of 1879 was formed, there were 57,000 bushels of grain at Petrovsk, and 165,000 rations of horse-biscuit, or the equivalent of 45,600 bushels of barley at Tifis and Alexandropol.

For the first supply of the horses in 1879, 4 months' supply of grain (228,000 bushels) was required. Of this amount, 57,000 bushels of barley were delivered from the store at Petrovsk, and 165,000 rations of horse-biscuit from Tifis and Alexandropol, and 20,000 *chetverts* (124,000 bushels) were furnished by the contractor Karganoff at 5½ *roubles* a *chetvert*. Afterwards by order of General Lázareff, Karganoff supplied at Chikishliár, for requirements during September and October 1879, 21,031 *chetverts* of barley (119,876·7 bushels) at *roubles* 40 *kopecks* a *chetvert* (for a total sum of 155,629 *roubles*, of which half was paid in gold and silver money).

* Through the Superintendent of the Krásnovodsk supply-depôt in the trade 4,100 *chetverts* (23,370 bushels) at 3 *roubles* 50 *kopecks* and by the Superintendent of the Baku supply-depôt 3,000 *chetverts* (17,100 bushels) at 3 *roubles*, and 4,000 *chetverts* (22,800 bushels) at 3 *roubles* 50 *kopecks* a *chetvert*.—*Author*.

† In Government ovens by the men, 2,000 *chetverts* (11,400 bushels) at 2 *roubles* 20 *kopecks*.—*Author*.

‡ In Government ovens by the men 14,607 *chetverts* (83,259·9 bushels) at 1 *rouble* 64 *kopecks* and by hired bakers 70 *chetverts* (3,990 bushels) at 4 *roubles* 50 *kopecks*.—*Author*.

For the supply of forage in November and December 1879, and to the 1st (13th) July 1880, there were ordered from the trade by Intendance Official Michelson, 56,250 *chetverts* of oats (220,625 bushels) at 5 *roubles* 3 *kopecks* (282,937 *roubles*), to be transported to the east coast of the Caspian at Government expense.

Afterwards, to ensure the supply of forage for the horses of the expedition and the horses and camels of the transport from the 1st (13th) July, and all other horses in Trans-Caspia, including those at Krásnovodsk and in Fort Alexandrovsk from the 1st (13th) August 1880 to the 1st (13th) January 1881, 73,000 *chetverts* of oats (433,200 bushels) were furnished by the contractor Pitoyeff, to be delivered to the receiving board at Astrakhán, at 5 *roubles* a *chetvert* (380,800 *roubles*).

This delivery was to be completed as follows:—By the 21st May (2nd June) 20,500 *chetverts* by the 30th May (11th June) and 15th (27th) June, 17,000 *chetverts* each; and by the 1st (13th) July 21,500 *chetverts*; but in consequence of the rejection by the board of a considerable portion of the oats, their justification by the contractor, and latterly by delay in the delivery of the oats by the contractor, a postponement of the delivery of 204,687 bushels took place, and 11,314·5 bushels were definitely rejected.

The reason was that, in the agreement with Government, the contractor bound himself to furnish oats without an intermixture of foreign bodies, while in those oats brought up for inspection on the 11th (23rd) July, there was a mixture of other seeds, including corn-cockles. In consequence of this, the Control Official, Milutin, pointed out that such oats could not be received.* In justification of his opinion he said that, although 8,550 bushels of the oats had been cleaned by the orders of the president of the board, General Dumánski, in the presence of a member, Staff-Captain Karpovitch, according to the regulations for the guidance of the board, it was only to take over thoroughly good products from the contractors, and not attempt to improve bad ones. He also stated that these oats had already been rejected, according to a protocol of the board,† as containing more than 5 per cent. of corn-cockles; that although the latter was got rid of when the oats were cleaned, it was only to a very limited extent; and finally, that the oats were insufficiently dried and were not up to weight. Surgeon Rimsch agreed with Milutin's opinion. The remaining members of the board, while not denying the existence of corn-cockles in the oats, resolved to take them over for Government, provided a certain percentage were added to make good the loss of weight when the oats were cleaned by the troops. This additional percentage varied from 1 to 3 (Russian) pounds (.9 to 2·7lbs.) per *chetvert* (198·55lbs.).

The Field Control protested against these decisions of the boards, and brought the following main points to notice:—(1) Troops on the march and in positions have no time to set to work to clean supplies, which ought to be delivered to them in first-rate condition, and they have not the implements required to separate the corn-cockles from the oats; (2) It has not yet been exactly determined to what extent corn-cockles are hurtful to horses, but in any case they

* How inferior were the oats supplied by the merchant Pitoyeff is seen from the fact that, of 5,370,721 bushels of oats offered by him, 773,836 bushels were rejected. The first batch of 20,500 *chetverts* brought in May was full of corn-cockles and dirty grains, and generally was not up to contract. As, however, the Intendance pointed out the necessity of the oats being received quickly, the board was forced to sort the oats and take over the best portions. Thus, of 20,500 *chetverts*, 12,000 were unconditionally rejected and only 8,500 taken over, 3 pounds being added to each *chetvert* to make good the loss of weight which would result from the oats being cleaned.—*Author*.

† On the 11th (23rd) July 1,500 *chetverts* of oats were offered which were part of 3,500 already rejected by Protocol No. 150.—*Author*.

produce giddiness in them; (3) The receiving board fixed the additional quantities of oats to be supplied to replace the corn-cockles at one pound a *chetvert*, while the medical member of the board found in certain cases 2 per cent. of corn-cockles which makes $4\frac{2}{5}$ pounds. The presence of this percentage was fully confirmed by the principal medical officer at Astrakhán, who, while he could not give a categorical reply as to the percentage of corn-cockles which would be hurtful to horses, pointed out that in oats delivered from the Upper Volga there were sometimes 5 per cent. of corn-cockles.

The insistence upon their opinion of the Field Controller and of the medical officer caused the contractor to take measures to ensure further supplies of oats being brought with a considerably smaller intermixture of corn-cockles and finally they became actually of good quality.

Upon this question, the Commander of the Expedition wrote: "I do not pay so much attention to the oats having an admixture of corn-cockles (with our Intendance regulations and officials, even in Turkistán we cannot get flour without a mixture of herbs) as to the extraordinary declaration of the board that the cleaning of the oats is to be done by the troops. That is too much; and I completely agree with the opinion of the Controller, who has shown incomparably more knowledge of the conditions of active service than the board which consists of officers who have already seen war (!!)?"

The oats delivered by Pitoyeff were taken over at Government expense to Krásnovodsk, except 39,900 bushels which were sent to Petrovsk for the supply of the troops concentrated there preparatory to embarkation for Trans-Caspia.

For the supply of forage for the horses from the 1st (13th) January to the 1st (13th) July 1881, 26,400 *chetverts* of oats (148,480 bushels) were ordered from the merchant Alafuzoff, at 5 *roubles* 98 *kopecks* a *chetvert* (157,872 *roubles*). These oats were to be delivered at Astrakhán to the receiving board in two batches on the 1st (13th) and 15th (27th) October. It was to be transported to the east coast of the Caspian at Government expense, 13,680 bushels being landed at Fort Alexandrovsk and the rest at Chikishliár.

Notwithstanding all the exertions of the Astrakhán receiving board, part of the oats (14,790·4 cwt.) could not be sent off by it before the closing of navigation at Astrakhán in 1880.

On the remaining oats being inspected by an official of the Control and a surgeon, it was found that their packing did not correspond to the conditions of contract. The mats ought to have weighed 5 lbs. (Russian), while in reality the oats were tied up in mats weighing $3\frac{1}{4}$ to $4\frac{1}{2}$ pounds. Such cases were not isolated, and notwithstanding all protests, the articles of which there was supposed to be urgent need had frequently arrived in Trans-Caspia in insufficiently strong wrappers. As, however, there was plenty of time to have them repacked before the opening of navigation in 1881, the Chief Controller requested that this might be done at the expense of the members of the board which had passed the packing of these products.

Besides the grain, there were prepared in Alafuzoff's biscuit manufactory at Piätigorsk, at General Skobelev's request, 100,132 rations of horse-biscuit to be delivered at Petrovsk by the 1st (13th) August 1880, at 50 *kopecks* a ration, in all 50,066 *roubles*. These were transported from Petrovsk to Chikishliár on steamers of the "Caucasus and Mercury Company."

* Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 49.—*Author*.
Report from General Skobelev, to the Commander-in-Chief, No. 37, dated 12th (24th) March 1880.—*Author*.

Consequently, during 1870 and 1880 there were prepared 1,136,837·2 bushels of grain forage for a sum of 1,076,513 *roubles*, and 100,132 rations of horse-biscuit for 50,066 *roubles*, making in all 1,126,579 *roubles*.

For the supply of hay to the horses of the expedition for 1879, the contractor Karganoff agreed to transport to, and deliver at, Chikishliár 30,000 *puds* (9,600 cwt.) at 50 *kopecks* a *pud*, and 20,000 *puds* (6,400 cwt. at 70 *kopecks* a *pud*, in all 50,000 *puds* of hay (16,000 cwt.) for a sum of 29,000 *roubles*.

Hay was also prepared in Trans-Caspia itself under the orders of General Lázareff and Tergukássoff as follows :—

(1) *By General Lázareff's orders—*

In June and July	at Chikishliár	40,000 <i>puds</i>	(12,800 cwt.)	at 50 <i>k.</i> a <i>pud</i> .
In July	" Chát	897 "	(287·04 ")	" 80 <i>k.</i> "
In August	" Gudri	7,429 "	(2,537·28 ")	" 45 <i>k.</i> "
In June	" Tarsakán	702 "	(217·64 ")	" 80 <i>k.</i> "
In July	" "	4,360 "	(1,395·2 ")	" 1 <i>r.</i> 50 <i>k.</i>

(2) *By General Tergukássoff's orders—*

In September	at Chikishliár	62,425 <i>puds</i>	(22,216 cwt.)	at 45 <i>k.</i> a <i>pud</i> .
In October	" Chát	20,000 "	(6,400 ")	" 1 <i>r.</i> 20 <i>k.</i> "
In "	" Duz-Olum	20,000 "	(6,400 ")	" 1 <i>r.</i> 80 <i>k.</i> "

In 1880, under the orders of the Caucasus Intendancy, 8,320 cwt. of compressed hay were obtained at Petrovsk for the sum of 16,400 *roubles*, and this amount was taken to Fort Alexandrovsk and to Krásnovodsk to supply the horses and camels which were being purchased in Mangishlák, and in addition, the superintendent of the magazine at Krásnovodsk caused 4,800 cwt. to be prepared by the local inhabitants at a cost of 11,250 *roubles*.

For the forage for the horses of the troops to be concentrated at Petrovsk previous to embarkation for Trans-Caspia, the contractor Karganoff agreed to furnish at Petrovsk 52,000 *puds* (16,640 cwt.) of compressed hay at 80 *kopecks* a *pud*, and the same contractor undertook to deliver 140,000 *puds* (44,800 cwt.) of compressed hay near Lankorán at 70 *kopecks* a *pud* for the horses of the troops in Trans-Caspia, 20,000 *puds* to be delivered on the 15th (27th) June and 1st (13th) July, and 25,000 on the 15th (27th) July, 1st (13th) and 15th (27th) August, and 1st (13th) September.

In consequence of frequent rain in the Lankorán district (during which hay could not be compressed) and also by reason of the board having rejected some damp hay, from June to December 1880, Karganoff only delivered 33,337·6 cwt. and failed to supply the remaining 11,462·4 cwt.

Hay was first brought up uncompressed for inspection, and was afterwards compressed in the open air and consequently became exposed to the action of rain. The shed in which the hay furnished by Karganoff was stored had no roof; there was too a great want of transport, and what there was was taken up in carrying stores for the railway under construction in Trans-Caspia. The receiving board did not make proper arrangements for tarpaulins, and the compressing machinery worked very badly; so the result was that, on account of the rain which fell almost uninterruptedly at Lankorán from the 19th (31st) August, the hay was constantly kept damp, and consequently most of it went bad.

This state of matters called forth frequent complaints and protests from the Field Control, the President of the Lankorán Receiving Committee, and General Petrúsevitch, who pointed out both to General Skobelev and the Intendant of the Caucasus that the hay delivered at Krásnovodsk from Lankorán was damp and badly pressed.

The delay in the delivery of hay on the east coast of the Caspian was so great that out of 16,576 cwt. received, only 3,443.4 cwt. had been sent off by the 1st (13th) August. This slowness threatened to leave the troops at Krásnovodsk entirely without hay, of which a deficiency had been already felt, and the Intendence of the Force had to try to obtain it locally without waiting the time appointed by law for the delivery of goods after they have been called for. By the 1st (13th) October 1889, the boards had received 30,534.4 cwt. of hay; but of this quantity only 17,198.72 cwt. had been despatched to the east coast, and at the end of August 13,335.78 cwt. were still awaiting shipment from want of ships. In consequence of the heavy rains, 8,970.88 cwt. of hay, which had been taken over from the contractors, but which had not yet been sent off, was much wetted, and the trusses had to be dried, shaken out, and then pressed again. Hence arose fresh delay in the final preparation of the hay, new expenses for a second pressing, and much loss of hay, in consequence of its being dried and shaken. To avoid in some measure the great loss to Government, the Chief Controller demanded tarpaulins for the Lankorán board; but these arrived only in October. Up till then the hay had been covered with mats and grass, which in no way saved it from destruction.*

Meanwhile the transport available at Lankorán had not only not been increased during October, but on the contrary the ships which had been taking away the hay were sent to Astrakhán to bring railway stores. This circumstance compelled the Chief Controller to request General Skobeleff to take measures to insure the transport of the hay, of which on the 1st (13th) November there still remained 15,639.36 cwt. awaiting transport. Even after the Lankorán board had been dissolved, hay continued to arrive, which soon became completely unfit for use, so the Chief Controller proposed to stop its further delivery so as to avoid further loss to Government in payments for transport and unloading. In all, 22,321.92 cwt. of Lankorán hay was delivered on the east coast of the Caspian (at Krásnovodsk).

The total amount of hay prepared under the orders of the Intendant of the Caucasus circle and of General Lázareff and Tergukássoff in 1879 and 1880 for Trans-Caspia was 131,357.76 cwt. at a cost of 299,307 roubles.†

The experience of the transport of hay in 1879 from Chikishliár to the advanced points had shown that the loss of it is very great; that it is impossible to prevent camels eating it on the way; and finally, that its transport in this manner is very costly, as a camel hired to carry 10 *puds* (361 lbs.) can only carry 5 *puds* of hay in consequence of its great bulk, and therefore the transport of hay costs twice as much as that of other supplies of less bulk weight for weight. Thus, *e.g.*, in November 1879, 9,500 *puds* of uncompressed hay were carried from Chikishliár to Duz-Olum on 2,060 camels, a *pud* therefore costing 1 rouble 80 *kopecks* before it was delivered at Duz-Olum.

In getting hay ready therefore for the troops of the Atrak line in 1880, it was necessary to avoid such errors; in other words, to obtain it locally. It was also necessary to do so in order to leave transport available for other and more

* Telegrams from the Caucasus Intendant, Nos. 2383 and 3126, dated 3rd (15th) September and 5th (17th) October 1880.—*Author*.

† Report of the operations of the Caucasus Intendence for the supply of the troops in Trans-Caspia in 1879 and 1880. *Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 2, Part I, and No. 20.*—*Author*.

necessary articles, and this system had already been begun when General Murávieff commanded the troops on the Atrak line.

On the 30th December 1879 (11th January 1880) the Intendant of the force had concluded a contract with Niáz-Muhammad, an inhabitant of Khiva and Khuboff, an Armenian, according to which they were bound to furnish hay for the garrisons of Chikishliár, Chát, and Duz-Olum, to deliver it direct to the troops at the former place, but to the supply-depôts at Chát and Duz-Olum, in the following quantities and on the following dates:—for Chikishliár 5,760 cwt. (18,000 *puds*), Chát 2,944 cwt. (9,200 *puds*), and Duz-Olum 2,284·8 cwt. (7,140 *puds*), total 10,988·8 cwt. (34,340 *puds*). Of these quantities, 2,880 cwt. were to be delivered at Chikishliár by the 1st (13th) February, the rest by the 1st (13th) March 1880, and half the quantities to be handed over at Chát and Duz-Olum on the 1st (13th) March, the rest on the 1st (13th) April. The price was fixed at 39 *kopecks* a *pud* at Chikishliár, 1 *ruble* 15 *kopecks* at Chát, including delivery and stacking, and 1 *ruble* 60 *kopecks* at Duz-Olum on the same conditions as at Chát.*

On the inspection of 192 cwt. of Khuboff's hay in the end of February 1880 by a military board at Chikishliár, it appeared that it was of a late growth and much burnt up, and that it crumbled into dust with the least rubbing. Consequently there was no nourishment in it, and its weight had been almost doubled by the rain. When informed of this, Khuboff at once adopted measures to make new hay on the Atrak, and part of this (640 cwt.) he delivered at Chikishliár. This hay, however, was also of late growth, and consequently possessed little nourishment; so Khuboff requested the Intendant of the force to inform him where hay could be obtained which would perfectly answer all requirements. This the Intendant was unable to do; so he requested the Temporary Commander of the Troops to assemble a new board to again inspect the hay furnished by Khuboff, and, in case of its not being found sufficiently nourishing, to order the replacement of 5 (Russian) pounds (4·5 lbs.) of hay by 1 *garnek* (3·35) of oats, *i.e.*, so that each troop horse should receive 8·1 lbs. hay and 13·4 lbs. oats, and this was decided upon for the period from the 15th (27th) March to the 15th (27th) April.†

In consequence of this decision of the Intendant of the force, and as he himself was much interested in the further storage of hay, General Murávieff enquired of commanding officers on the 4th (16th) March 1880 whether, and on what conditions, they would take upon themselves the supply of hay for the troops under their command. The commanding officers of the Taman Cossacks and of the 2nd half of the 4th Battery, 20th Brigade, consented to prepare hay for their own horses at 47 *kopecks* a *pud*, and the superintendent of the Chikishliár supply-depôt undertook to furnish hay for the garrison of Chikishliár for the month of April at 45 *kopecks* a *pud*.‡

At the same time General Murávieff received instructions from Tiflis to the effect that, as the expedition against Akhál-Tekke was likely to be continued in 1880, he was to concentrate at the advanced points, and mainly at Duz-Olum, as large a quantity of provisions and forage as possible, and supply his troops as far as practicable with the store in the country and that about to arrive there. The Chief of the Staff of the Army of the Caucasus also added

* Diary of Section III of the Staff of the Trans-Caspian Field Force, 1880, No. 2, Part I, p. 219.—*Author*.

† Diary of Section III of the Staff of the Force, 1880, No. 2, Part I, Page 77.—*Author*.

‡ *Ibid.*, pages 79 and following.—*Author*.

that, as in the district between Chikishliár and Duz-Olum, and especially on the left bank of the Atrak and on its tributaries, there were vast tracts whereon hay could be cut, he should proceed to have it mown, using his troops in case of necessity.*

After receipt of these instructions, on the 10th (22nd) March General Murávieff received a report from the commandant of the troops at Chát, stating that for the last 3 days (from the 6th (18th) March) they had not had a blade of hay, and that the contractor would give them nothing but promises. The General therefore authorised this officer to obtain hay by direct purchase out of the regimental treasure chest, the amount expended being recoverable from the contractor, and in the event of it being impossible to obtain hay, to replace the latter by oats, according to regulation, also at the expense of the contractor.† To complete the reserves of hay at Chát and Chikishliár, the Intendant of the force had, on the 18th (30th) and 22nd March (3rd April), concluded contracts with Alexander Melikoff, a citizen of Tiflis, and Gukasoff, an inhabitant of Shusha. The former bound himself to furnish 1,600 cwt. (5,000 *puds*) of hay to the Chát supply magazine, 800 cwt. being delivered on the 15th (27th) April and the same amount by the 1st (13th) May, for 1 *ruble* 40 *kopecks* a *pud*, delivered and stacked, $\frac{1}{4}$ th of the total being paid in gold or bank silver, while the latter undertook on the same conditions to deliver 3,200 cwt. (10,000 *puds*) at the Chikishliár supply-depôt, half on the 25th March (6th April) and half on the 10th (22nd) April, for 43 *kopecks* a *pud*.‡

After this, in fulfilment of the instructions of the Caucasus authorities as to the troops being supplied with hay for the projected expedition under arrangements made by the Intendant of the force, on the 20th March (1st April) contracts were set up to auction at Chikishliár for the supply of hay at the points occupied by us, to the amount of 48,240 cwt. for a 6 months' supply. As there were no bidders, fresh contracts were asked for on the 26th March (7th April).

For the contracts for the supply of hay at Karája-Bátir, Yágli-Olum, Chát, and Duz-Olum there were no applicants; but the supply of hay at Chikishliár, 15,632 *puds* (5,002·24 cwt.),—5,000 to be delivered each on the 1st (13th) May and 1st (13th) June, and the rest on the 1st (13th) July, was undertaken by Melikoff, a citizen of Shusha, on the 9th (21st) April, for 45 *kopecks* a *pud*, $\frac{1}{4}$ th to be paid in coin. At the end of the month, Melikoff again undertook to furnish at Chikishliár during June and July 5,977·76 cwt. of hay at the same rate.§ In addition to this, in consequence of the representations of the commander of the Taman Cossacks, he was also intrusted with the supply of the hay (12,000 *puds* = 3,840 cwt.) required for that regiment, which was stationed at Chikishliár, 43 *kopecks* a *pud*, $\frac{1}{4}$ th being paid in coin.||

For the supply of hay at Karája-Bátir and Yágli-Olum on the 5th (17th) April, by order of General Murávieff, the Intendant of the force concluded a contract with Hákim-Bai-Babaeff, an inhabitant of Khiva, by which the latter bound himself to supply at each of these points, in equal portions, on the 1st (13th) 15th (27th) May, 3,000 *puds* (960 cwt.) of hay, delivered at Karája-Bátir for 70, and at Yágli-Olum for 90 *kopecks* a *pud*, $\frac{1}{10}$ th being

* Diary of Section III of the Staff of the Force, 1880, No. 2, Part 1, page 95.—*Author*.

† *Ibid.*, pages 99 and 100.—*Author*.

‡ Diary of Section III of the Staff of the Force, No. 2, Part 1, pages 124 and 142.—*Author*.

§ *Ibid.*, page 115.—*Author*.

|| *Ibid.*, pages 201 and 202. But instead of $\frac{1}{4}$, $\frac{1}{10}$ th only in gold.—*Author*.

paid in gold or bank silver.* As regards Chát and Duz-Olum, the Atabai and Jafarbai Turkumáns offered to furnish at each 10,000 *puds* of hay (3,200 cwt.) at 1 *rouble* 15 *kopecks* at the former, and 1 *rouble* 64 *kopecks* at the latter.†

After this first experiment of hay being furnished by the local tribes, a second was made, and on the 30th April (12th May) General Murávieff instructed the commander of the troops at Chát, Colonel Prince Eristoff, to receive from the Goklán Nur-Geldi-Khán 25,000 *puds* of hay (8,000 cwt.) at 1 *rouble* a *pu*.‡

The first experiment of taking over hay from the natives was not altogether a success, as that furnished by the Jafarbai disagreed with the horses, for it was covered with mud, and was moreover rotten and damp. General Murávieff accordingly gave orders that such bad hay was not to be taken over,§ but so as not to deter the inhabitants from bringing hay, he afterwards gave instructions that it was to be received on as easy conditions as possible, and that, when it was damp, it was to be dried after purchase.||

On the arrival of General Skobelev in Trans-Caspia, he paid special attention to the measures adopted to encourage the furnishing of hay by the local inhabitants. On the advance of the force in the end of May from Duz-Olum to Khwája-Kala, some young reeds were found which were used instead of hay. Green fodder was so abundant at the latter point that orders were given to issue only 10·05 lbs. of grain to each horse, while from the 2nd (14th) June to the 1st (13th) July the issue of grain to Government camels was entirely stopped.¶ After the reconnaissances of the routes leading into the *oasis* immediately after the occupation of Khwája-Kala, it became evident that by occupying a point at the entrance to the *oasis* we should be able to make use of the crops of the Tekkes at Bámi, Burma, Zau, Kizil-Chashma, and Kizil-Arvát. As a matter of fact, on the occupation of Bámi and Burma in the first days of June, the force took with it from Khwája-Kala no grain, but only scythes and sickles. In all there were collected in the Tekke fields at Bámi, Burma, Zau, and Kizil-Chashma 1,526·08 cwt. of wheat and 3,268·8 cwt. of *saman*, which were used for forage. At first 6·7 lbs. of wheat and 34·2 lbs. of straw were issued per horse, but afterwards this large ration of wheat was found to be hurtful, and it was therefore diminished to 3·35 lbs. *per diem*. The wheat and *saman* lasted the horses of the force for a month, *i.e.*, till the 15th (27th) July, and then oats were again issued, 10·05 lbs. *per diem* for cavalry and artillery, and 8·4 lbs. for train and pack horses,** but in place of hay the troops had to collect steppe grass and wormwood. As the transport of oats to Bámi was very difficult, the force of cavalry at this point was reduced to 1 *sotnia*, while the artillery and transport horses, being constantly occupied in the transport of guns and supplies up the Atrak line, were almost always away from Bámi, and therefore constituted no burden.

* Diary of Section III of the Staff of the Force, No. 2, Part 1, pages 166, 167, and 176. This hay was actually collected by the commander of the regiment.—*Author*.

† *Ibid.*, pages 170, 171, 172, and 182.—*Author*.

‡ *Ibid.*, pages 192 and 199.—*Author*.

§ *Ibid.*, pages 207, 213 and 215.—*Author*.

|| Diary of the Section III of the Staff of the Force, 1880, Pages 240 and following.—*Author*.

¶ General Orders, Trans-Caspian Field Force, Nos. 71 and 74, dated 2nd (14th) June, and 123 of 1st (13th) July.—*Author*.

** General Orders Trans-Caspian Field Force, Nos. 103, 127, and 152, dated 16th (28th) June and 2nd (14th) and 15th (27th) July.—*Author*.

Directly after the occupation of Bámi, General Skobelev ordered the Intendant of the force to lay before him his ideas as to the storage of forage by hired labour at Band-Hassan, where large numbers of reeds grow on the marshy banks of the river bed, the natives being invited to work for us. The General remarked that the example of Nur-Geldi-Khán, who had delivered hay at Duz-Olum, showed that the plan proposed by him could easily be carried out if all were quiet in rear. He recommended special attention being paid to this matter.*

Nur-Geldi-Khán, who had been summoned to Bámi from Duz-Olum, agreed to deliver 5,120 cwt. (16,000 *puds*) at Khwája-Kala, and 1,600 cwt. (5,000 *puds*) at Társakán during July and August,† at a price of 1 *ruble* 40 *kopecks* (in notes) *per pud* at either place. Of this quantity 960 cwt. were permitted to be young reeds.‡

Nur-Geldi-Khán appeared to the Commander of the Expedition a trustworthy man, and he hoped that business with him might afterwards be developed.

This opinion was partly confirmed. Notwithstanding the dangers accompanying mowing, as the latter might easily cause a fight, Nur-Geldi-Khán continued to deliver hay. In a letter to General Skobelev, he stated that the Tekkes had driven off five of his horses, and that the men sent in pursuit had had a fight with them, and had killed one and wounded another, but had themselves lost one man wounded. He and his men were working heartily, but the Tekkes were annoying them, and had burned 640 cwt. of hay which had already been stacked on their fields. In a following letter, Nur-Geldi-Khán informed General Skobelev that the Tekkes had killed four of his workmen and carried off two of them with 7 horses, burning also much of the hay.

The Commander of the Expedition, valuing the services of Nur-Geldi-Khán, ordered him to be informed that if the delivery undertaken by him was successfully carried out, notwithstanding the evident difficulties, he would by this means cease to hold the position of a simple contractor, and would become a distinguished servant of the Emperor, and that a report of his conduct would be made to the Commander-in-Chief, the brother of the Sovereign. Nur-Geldi-Khán was recompensed for his losses, as were also the families of the killed and wounded, the former receiving 100, the latter 50, *roubles* each. Finally one of the wounded Gokláns was awarded a silver medal with the inscription "For bravery," with a gift of 25 *roubles*.§

On the hay furnished at Khwája-Kala being inspected on the 7th (19th) July, the Intendant of the force found that, although of satisfactory quality, it required drying. Major Yepifánoff reported that it would not be well to reckon on the further delivery (5,120 cwt.) of hay according to the contract. Nur-Geldi-Khán, although not refusing to deliver more hay, made too great demands, requiring, amongst other things, an escort for his workmen. But after some time he, in consequence of great losses among his men, requested to be relieved from the further performance of his contract, even though an escort were given him, and he further consented to abate the price of the hay already delivered (1,600 cwt.) to 1 *ruble* 20 *kopecks* a *pud* at Társakán, instead of the 1 *ruble* 40 *kopecks* primarily

* General Order, Trans-Caspian Field Force, No. 92, dated 10th (22nd) June 1880.—*Author*.

† In the first month, 3,200 cwt. at Khwája-Kala and in the first half of August 1,600 cwt. at Társakán, and in the second half of August 1,920 cwt. at Khwája-Kala.—*Author*.

‡ Diary of the Staff of the Force, 1880, No. 2, Part I, page 319, and Part II, page 43.—*Author*.

§ Diary of the Staff of the Force, 1880, No. 2, Part I, pages 298 and 300.—*Author*.

agreed upon. This circumstance compelled the Intendant of the force to request the Commander of the Expedition to put a stop to the issue of hay at Khwája-Kala till all the fresh reeds, which were quite fit for forage, had been used up. General Skobelev, while ordering* that the hay supplied by Nur-Geldi-Khán was not to be issued for the horses of the garrison or of detachments passing through, insisted on a supply being delivered at Khwája-Kala and in advance of this point. He made it one of the duties of the volunteer detachments to protect the workmen of Nur-Geldi-Khán, and ordered proposals to be made to him to furnish 2,800 cwt. of hay at Bámi, and 6,400 cwt. at Band-Hassan by the 1st (13th) November 1880. At the same time to arouse the energy of Nur-Geldi-Khán, he was decorated with the Military Order of the 4th Class and awarded a *khalat* of honour of the 1st class.

Nur-Geldi-Khán consented to furnish hay at Band-Hassan and Bámi, but upon condition that 15 days should be given him to hire workmen, after which alone could he declare what prices he would require and conclude a contract. In the end of July he proceeded to cut grass in the environs of Band-Hassan; but when it was explained to him that meadows must be left of such a size as to suffice for the garrison and the camel infirmary as well as troops passing through, he went away.

Nobody undertook to furnish hay at Bámi, and therefore offers were invited for its delivery at Band-Hassan and Kizil-Arvat, General Skobelev laying down 90 *kopecks* a *pud* as an outside price. At last a contractor for Band-Hassan appeared in the person of Muhammad Jáfár, an inhabitant of Bajnurd. Although he demanded 1 *ruble* 10 *kopecks* a *pud*, he agreed to the condition that, if any one offered to supply hay there at a cheaper rate, he himself would come down to that rate. In the middle of August, when he was about to set to work, the sutler Sheremeteff declared that he would take upon himself to furnish 3,000 *puds* (6,400 cwt.) of hay at Band-Hassan at 90 *kopecks* a *pud*; and then Muhammad Jáfár was informed that he would only be paid at the same rate.† He in consequence refused to furnish any more hay, but agreed to sell the 8,000 *puds* (2,560 cwt.) already collected by him at Band-Hassan for 90 *kopecks* a *pud*.‡ After this Sheremeteff, who had been cutting grass secretly in places reserved for the troops, also refused to furnish any more after the first 256 cwt.

As there were no further offers for the supply of hay at Band-Hassan, the commander of the advanced line, Colonel Verjbitski, after strengthening the garrison of Band-Hassan by the 14th company of the Apscheron Regiment, resolved to make the soldiers of that garrison cut grass, giving them working pay at so much *per pud*.§ The grass was cut at 10 miles from Band-Hassan, in the direction of Nukhur. The hay at this point was of much better quality than that near Band-Hassan, and the garrisons of Bámi and Band-Hassan prepared enough hay for themselves to satisfy current requirements.||

In the beginning of October, 2½ companies were employed in hay-making, 16½ miles from Band-Hassan. At this time the reeds had already begun to be of very bad quality and the grass had got dried up.¶

* General Order No. 161, dated 18th (30th) July.—*Author*.

† Diary of Section III of the Staff, No. 26, page 90.—*Author*.

‡ Report from Verjbitski to the Commander of the Expedition, No. 176, dated 11th (23rd) September.—*Author*.

§ *Ibid.*—*Author*.

|| Report from Verjbitski, No. 393, dated 28th September (10th October).—*Author*.

¶ Report from Verjbitski, No. 580, dated 9th (21st) October.—*Author*.

Desiring greatly that everything required for the advance should be got ready as quickly as possible, and wishing to secure as well as possible the provision of the necessary supplies and forage for the advanced force, General Skobelev on the 28th September (10th October) telegraphed to Verjbitski to take measures to prepare supplies of hay at Khwája-Kala, Band-Hassan, and Kizil-Arvát without regard to price, as long as the interests of Government were properly looked after. He at the same time stopped the issue of hay from Duz-Olum up to Bámi, ordering the horses to be foraged from local resources, *i.e.*, common and steppe grass. The hay (2,560 cwt.) furnished by Muhammad-Jáfar was to be considered as a reserve, and was only to be issued upon his personal orders. The same course was to be adopted with the stores of hay at Khwája-Kala and Társakán. Muhammad-Jáfar was to be invited to furnish more hay at 1 rouble 10 kopecks a pud, and in case of necessity he was to be forced to do so, but without causing dissatisfaction at Bujnurd, with which town it was necessary to keep on good terms on account of Grodekoff's mission.*

The positive dearth of green forage in the environs of Bámi and the other points of the advanced line at which General Skobelev had ordered the horses to be supplied from local resources, and the orders given by the Commander of the Expedition to the effect that, by the date of the advance against Gok-Tapa, there was to be available a reserve of 12,800 cwt. of oats at Bámi, and 1,920 cwt. at Khwája-Kala, forced Verjbitski to take the following measures:—

(1) On the 11th (23rd) September, when the oats were delivered at Bámi, he ordered them to be issued in the prescribed quantities; but instead of hay, horse-biscuit was to be issued, one pound (9 lbs. English) being considered as the equivalent of 5 pounds (4·5 lbs. English) of hay.† On the 1st (13th) October, however, the issue of horse-biscuit was stopped.‡

(2) On the 9th (21st) October the issue of forage to all Government camels at all the advanced points except Duz-Olum was stopped.§

(3) From the 10th (22nd) October the issue of oats at Bámi, Band-Hassan, Khwája-Kala, Társakán, and Kizil-Arvát to cavalry, artillery, and regimental transport horses was stopped,|| and the oats brought up to Bámi and the other advanced points were ordered to be considered as a reserve. All horses which were not indispensable were ordered to be sent to Duz-Olum on the 14th (26th) October, and there the usual issue of oats to them was allowed. At Bámi there were only allowed to remain one horse each for Colonel Verjbitski, Colonel Haidaroff, Prince Mahaloff, Commanding the 4th Battalion Apsheron Regiment, Captains Melnitski and Nedománski of the General Staff, Colonel Rutkovski and Captain Yablochkoff of the Engineers, and Lieutenant Maksimovitch, commanding the heliographic detachment; a ration of 6·7 pound of oats *per diem* being allowed to each animal. In his order, Verjbitski said that, as these arrangements were forced upon him by the necessity of increasing the supply of forage at the advanced points, he requested that they would be carried out to the letter for the good of the service, station commandants being made responsible for the slightest infraction of his orders. To the Government transport horses and those of the Red Cross Society only was an issue of 3·35 lbs. of oats and 9 lbs. of hay allowed. ¶

* Instructions to Verjbitski, No. 1446, dated 28th September (10th Octob. r).—*Author*.

† Advanced Force Order, No. 29.—*Author*.

‡ Advanced Force Order, No. 61, dated 3rd (15th) October.—*Author*.

§ Advanced Force Order, No. 68, dated 7th (19th) October.—*Author*.

|| Advanced Force Order, No. 70, dated 9th (21st) October.—*Author*.

¶ Advanced Force Order, No. 76, dated 12th (24th) October.—*Author*.

"I know," wrote General Skobelev to Verbitski, "what difficulty there is in the matter of forage, but the thing must be done. The end of our painful waiting will soon come. Feed the cavalry and artillery horses with whatever God provides. It is better to send all the horses back to Duz-Olum without losing a moment than to expend *a garnets* of oats at Bámi."

At Bámi there also remained the 3rd *sotnia* of Taman Cossacks, numbering 60 effective horses. In the event of guns being required to be moved out from Bámi, they were to be drawn by the Cossack horses or by camels.*

As he was constantly receiving instructions from General Skobelev, urging him to procure hay by whatever means he could, Verbitski applied to the Nukhurites in the middle of October, asking whether they could not furnish some hay. They expressed their readiness to do so, but requested a few troops to be sent to them. On Verbitski's enquiring whether he might send a company of infantry and a mountain gun to Nukhur, General Skobelev replied that, in the beginning of November, Durun would be occupied, and that then hay would be made at Nukhur, but that now he considered it dangerous to send troops there, as the slightest check might produce an unfavourable impression.

In the end of October Nur-Geldi-Khán completed the delivery of hay at Khwája-Kala and Társakán. On inspecting it, it appeared that instead of the stipulated 9,600 cwt. of young reeds he had delivered $\frac{9}{10}$ ths of the whole in reeds and only $\frac{1}{10}$ th in hay, and that both the reeds and hay were damp and some parts of them mouldy. As the matter was urgent, Verbitski ordered the hay to be taken over, but Chief Controller Cherevanski pointed out that it should not be paid for at contract price, but at a price according to its quality, which should be fixed by a board consisting of members from the troops, the Intendance, and the Field Control, in presence of the contractor or his representative. At that time, as Nur-Geldi-Khán could still be useful to us, General Skobelev gave no orders on the subject mentioned by Cherevanski, and said that his doing so would depend entirely on the progress of military operations and on whether Nur-Geldi-Khán continued to deliver hay at Duz-Olum where there was so little of it, that only 3·6 lbs. a day were issued to the horses, besides 9 lb. of horse biscuit, and 13·4 lbs. of oats, except in the case of those of the wheeled transport, which received 8·1 lbs. of hay.

Notwithstanding all exertions and the extreme measures taken at the advanced points, by the 19th November (1st December), *i.e.*, by the date of the advance of the cavalry into the *oasis*, there had only been collected:—At Band-Hassan 3,480 cwt. of hay (supplied by Muhammad Jáfar, Sheremeteff, the troops, both on payment and without pay, and by hired Kurd mowers) at a cost of 11,070 *roubles*; at Khwája-Kala, 1,855·58 cwt. for 16,800 *roubles*; and at Társakán 3,840 cwt. for 8,118 *roubles*.

At the other points of the Atrak line the hay question stood as follows:—

The contractor Gukasoff had agreed to deliver 50,000 *puds* (16,000 cwt.) by the 1st (13th) December at Chikishliár at 41 *kopecks* a *pud*. Lieutenant Trirogoff of the Intendance had agreed to purchase and deliver 7,000 *puds* (2,240 cwt.) at Karája-Bátir, 17,000 *puds* (4,540 cwt.) at Yágli-Olum, and 8,000 *puds* (2,560 cwt.) at Chát, at the rate of 50 *kopecks* a *pud* at Karája-Bátir, 70 *kopecks* at Yágli-Olum, and 1 *rouble* 10 *kopecks* at Chát.

* Instructions from General Skobelev to Captain Nedománski, No. 6186, dated Krásnovodsk, 3rd (15th) October 1880.—*Author*.

orders to have 9,600 cwt. of oats from the Persian supply-depots, concentrated on the frontiers of the Tekke *oasis* as near as possible to Gok-Tapa. This order was partly carried out by the formation of a depot at Garm-Āb, but its supplies could only be taken advantage of after the capture of Garm-Āb. Thus, during the whole siege of this fortress, our cavalry lived on the country which at the first superficial glance seemed to afford nothing; and General Skobelev's conviction that the cavalry could forage for itself in the *oasis* was fully justified. The cavalry thus freed him from the care of concentrating supplies at Sámurskoye and saved Government much expense on account of forage; and the whole expedition was conducted more quickly, for the transport of forage required twice as much time and transport power as that of provisions for the men. The whole secret was that the Commander of the Expedition did not allow commanding officers, who are too much inclined to place the interests of their own command before those of the service, to raise their voices. Notwithstanding the non-issue of forage, the cavalry did all that was required of it and only from the 5th *Sotnia* of the Taman Cossacks, stationed at Sámurskoye, where on account of its long occupation and the consumption of the grain found hidden in pits of the steppe grass for a considerable distance round, reports were received that the horses were beginning to fail from want of forage. The 5th *sotnia* was therefore moved forward into camp before Gok-Tapa, whence it could forage on the Askhábád road.

How much the Government was saved by the supply of their horses being left to the commanding officers of the cavalry, may be seen from the following table of the quantity of non-received dry-forage and grain, due to the Taman Cossack regiment, from the 10th (22nd) June 1880 to the 1st (13th) April 1881* :—

Number of the <i>Sotnia.</i>		Hay, cwt.	Oats, bushels.	For what period.
1st	...	2176.32	3481.275	From June 1880 to 1st (13th) April 1881.
2nd	...	1817.58	1229.775	From June 1880 to 1st (13th) April 1881.
3rd	...	1264.72	920.55	From September 1880 to 1st (13th) January 1881.
4th	...	736.8	356.25	From August 1880 to 1st (13th) January 1881.
5th	...	892.88	864.975	From 1st (13th) September 1880 to 1st (13th) April 1881.
6th	...	646	35.625	Up to 1st (13th) January 1881.
Total	...	7534.3	6888.45	

On the capture of Gok-Tapa, large supplies of forage were found in it. Then also the barley began to arrive from the Persian supply-depots, and the young*

* Diary of the Administrative Section of the Staff of the Trans-Caspian Field Force, 1880, No. 43, page 24.—*Author.*

grass appeared, which considerably improved the horses; and *saman* and lucerne were brought in from Persia for sale. General Skobelev, wishing to make the grain brought from the Persian supply-depots into a reserve, asked the commanding officers of cavalry and artillery in the middle of February whether they would not arrange for the supply of forage for their horses themselves. Four of them expressed their willingness to do so, and four refused. Of the latter the commander of the 4th Battery 20th Brigade at Askhabád declined the responsibility, because forage was only brought into Askhabád in very small quantities for sale, its purchase in Persia was very difficult, and, lastly, because his battery was soon to be moved to the west coast of the Caspian. The commander of the Poltava Cossacks refused, because his regiment was much scattered and far from the inhabited provinces of Persia, and there was not a sufficient quantity of forage in the *oasis*, and also because no contractors were to be found to bring it. The commander of the 5th Orenburg Cossacks would not take upon himself the supply of forage for his horses, as the current prices of forage were not fixed, his regiment had no transport, and, lastly, because forage money was issued in credit notes, while in Persia, where only forage could be obtained, these notes were unwillingly taken. Lastly, the commander of the Taman Cossacks pointed out that at the moment he could not give a positive answer, because (a) the headquarters and *sotnias* of his regiment had no fixed stations, and it was not known where they would be moved to; (b) there was not so much barley in the Akhal-Tekke *oasis* as to justify expectations of being able to purchase any considerable amount; (c) *saman* and lucerne would in all probability be universally grown, as from Kizil-Arvat to Karéz-Núr-Verdi-Khán the fields had not yet been sown; (d) the transport of forage was very dear; (e) all the barley would have to be brought from Persia and, therefore, could not arrive before May, from which time the regiment would undertake to supply itself with forage; but it was necessary to proceed at once to search for barley so as to ensure its purchase in time.

To this Colonel Artsishevski added that, according to the information collected by him, there were large meadows on which hay might be made round Báb-Aráb, Miráva, and Bagír, and also in the hills along the Kozlukh river. On these there would be hay enough not only for one but for two regiments, and workmen might be found in sufficient numbers. The mowing of these meadows might begin between the 15th (27th) May and 1st (13th) June, but to protect the mowers it would be necessary to have a permanent guard, as without this the cattle might eat up the grass, and it was most important also to have the meadows watered.

On the 2nd (14th) March 1881, an order was given that, as the commanders of the 4th Battery, 19th Brigade, and 6th Battery, 21st Brigade, had agreed to undertake the supply of forage for their own horses, they were to do so from the 1st (13th) April, being allowed 15 *roubles per chetvert* of oats or barley, weighing $5\frac{1}{2}$ *puds* (198·35 lb.), and 75 *kopecks per pud* (36·1 lb.) for hay. In conformity with these rates, the current prices for forage for officers' horses at Gok-Tapa and Askhabád, which had reached 34 *roubles per chetvert* of oats and 1 *ruble 40 kopecks per pud* of hay, and 38 *roubles* and 1 *ruble 40 kopecks* respectively, were reduced from the 1st (13th) April. The horses of the corps where commanders had declined to supply their own horses were to be rationed from the supply-depots.*

* General Orders Trans-Caspian Field Force, Nos. 48 and 114, dated 30th January (1st February) and 2nd (14th) March 1881. Author.

This circumstance and the destruction of our transport forced General Skobelev to make arrangements for fresh preparations of barley in Persia, to the amount of 16,000 cwt. During his stay at Lutfábád he concluded contracts with Muhammad-Ali-Khán, ruler of Daragaz, and his brother Said-Ali-Khán, for the supply of barley. The former agreed to furnish 500 Bujnurd *kharwars* at Kálta-Chinár, at 30 *kráns per kharwar*, within three months, and his brother undertook to supply 200 *kharwars* at Artík (near Lutfábád) at 20 *kráns per Tabriz kharwar*.* The total of the two lots was 4797·84 cwt. Afterwards, our agent in Persia, Colonel Volkoff, was ordered to buy enough to make up 16,000 cwt., *i.e.*, 11202·16 cwt. This latter purchase, however, was not carried out, as on General Skobelev's departure the new commander thought it superfluous.

As for hay, the Commander of the Expedition was quite convinced that there would be no lack of it for the horses remaining in the *oasis*. The Micháelovsk line, on the completion of the railway, would be supplied from Krásnovodsk, not to speak of local supplies, which might be drawn from the Great Balkháns and the valleys of the Kuren-Dágh. The Atrak line and the stations in the *oasis* up to Durun could be supplied from the rich meadows of the Chandír and Sumbár, in which, for part of the year, some of the cavalry might be kept out at grass. Counting on these valleys General Skobelev, soon after the capture of Gok-Tapa, ordered the old grass in them to be burnt. Besides these meadows, the environs of Band-Hassan and Társakán might be relied upon for hay, and it would also be found beyond Gok-Tapa. "Therefore", said General Skobelev, "commanding officers will shortly ask whether they may be allowed to look after their own hay supply." He advised his successor not to be in a hurry about deciding this question or fixing prices current. If he waited a little, the prices current would soon settle themselves. The matter was not so easy, as all were inclined to ask too high prices in view of the exceptional state of things.

General Skobelev's prophecies were fully realised.

In the expedition of 1879, for the supply of ships' rations to the troops for the first period of four months at the above-mentioned rates, there were ordered from the contractor Karganoff the following articles :—

Wheat flour	... 12,350	<i>puds</i> (3,952 cwt.)	at 1	<i>ruble</i> 40	<i>kopecks</i> a <i>pud</i> .
Rice	... 14,162	" (4,531·84 ")	1	" 4	" "
<i>Ghi</i>	... 1,937	" (619·84 ")	12	" 50	" "
Pig's fat	... 1,000	" (320 ")	11	" 50	" "
Pepper	... 50	" (16 ")	12	" 0	" "
Laurel leaves	... 50	" (16 ")	6	" 0	" "
Onions	... 1,250	" (400 ")	0	" 90	" "
Garlic	... 312	" (99·84 ")	2	" 0	" "
Salt	... 3,125	" (1,000 ")	0	" 10	" "
Fruit acids	... 1,550	" (496 ")	6	" 0	" "
Tea	... 392	" (128·44 ")	50	" 0	" "
Sugar	... 1,270	" (406·4 ")	9	" 0	" "
Spirits	... 600	<i>vedros</i> (1,620 gallons)	12	" 50	" <i>vedro</i> .

Total 123,620 *roubles*.

These supplies were delivered by Karganoff in two equal portions on the 15th (27th) May and 15th (27th) June at the Chikishliár depot.

* Instructions to Lieutenant-Colonel Volkoff, No. 590, dated 15th (27th) February 1881.—
Author.

Afterwards, under arrangements made by General Lázareff, Karganoff supplied for requirements in September and October 1879 :—

Wheat flour	... 9,390 <i>puds</i>	(3,004·8 cwt.)	at 2	<i>rouble</i> 40	<i>kopecks pud.</i>
Rice	... 9,240 "	(2,956·8 ")	" 2	" 4	" "
<i>Ghi</i>	... 1,803 "	(576·96 ")	" 20	" 0	" "
Pepper	... 30 "	(9·6 ")	" 14	" 0	" "
Laurel leaves	... 30 "	(9·6 ")	" 8	" 0	" "
Onions	... 150 "	(48 ")	" 1	" 60	" "
Garlic	... 187½ "	(60 ")	" 2	" 0	" "
Salt	... 1,875 "	(600 ")	" 0	" 20	" "
Fruit acids	... 937½ "	(300 ")	" 6	" 0	" "
Tea	... 132 "	(42·24 ")	" 60	" 0	" "
Sugar	... 468 "	(149·76 ")	" 9	" 0	" "
Spirits	... 480 <i>vedros</i>	(1,296 gallons)	" 14	" 50	" <i>vedros.</i>

Total 108,099 *roubles.*

These were delivered by Karganoff in two equal portions on the 1st (13th) and 15th (27th) August. One-eighth of the whole sum was paid to him in gold and bank silver from the funds of the expedition.

For the further supply of the troops from the 1st (13th) November 1879 to the 1st (13th) July 1880, the following supplies were ordered in the trade by Intendance official Michelson, to be delivered by the 1st (13th) November and transported across the sea at Government expense :—

Wheat flour	... 20,578 <i>puds</i>	(6584·96 cwt.)	at 1	<i>rouble</i> 78	<i>kopecks a pud.</i>
Rice	... 21,658 "	(6930·56 ")	" 1	" 60	" "
<i>Ghi</i>	... 4,160 "	(1331·2 ")	" 13	" 0	" "
Pepper	... 73 "	(23·36 ")	" 10	" 0	" "
Laurel leaves	... 73 "	(23·36 ")	" 5	" 50	" "
Onions	... 1,828 "	(584·96 ")	" 0	" 80	" "
Garlic	... 457 "	(146·24 ")	" 2	" 80	" "
Salt	... 4,570 "	(1462·4 ")	" 0	" 60	" "
Fruit acids	... 2,285 "	(731·2 ")	" 5	" 70	" "
Tea	... 302 "	(96·64 ")	" 46	" 0	" "
Sugar	... 1,062 "	(339·84 ")	" 8	" 30	" "
Spirits	... 1,200 <i>vedros</i>	(32·405 gallons)	" 10	" 0	" <i>vedro.</i>

Total 179,708 *roubles.*

This order was given to Michelson because of the lower prices proposed by him compared with those of Karganoff who, for the above quantity of supplies and for 320,625 bushels of oats, delivered at Chikishliár, asked 786,378 *roubles*, while, as Michelson showed, the cost of these articles added to the cost to Government of their transport to the east coast of the Caspian, would only be 577,971 *roubles*, thus making a saving to Government of 208,406 *roubles*.

In consequence of General Tergukásoff having increased the issue of tea and sugar to the troops, and ordered an issue of 9 lb. of cabbage for *kváss* to each man *per diem*, Michelson purchased for Government in the trade (including transport to the east coast in January 1880) 1,300 *puds* (406 cwt.) of sugar at 8½ *roubles a pud*, 10 *puds* (3·2 cwt.) of tea at 45 *roubles a pud*, total 11,500 *roubles*; and the superintendent of the Krásnovodsk supply-depot, Bastien, purchased 9,600 cwt. of cabbage for *kváss* for 56,100 *roubles*, delivered by the 1st (13th) November 1879, at the cost of the seller.

For the supply of the troops in Trans-Caspia with ships' rations from 1st (13th) July 1880 to 1st (13th) January 1881, the merchant

Alafuzoff agreed to deliver to the receiving boards at Astrakán and Baku:—

Wheat flour	...	21,900 <i>puds</i>	(6,958 <i>cwt.</i>)	at 2 <i>roubles</i> 15 <i>kopecks</i> a <i>pud.</i>
Rice	...	21,900 "	(6,950 "	" 2 " 40 " "
<i>Ghi</i>	...	5,250 "	(1,680 "	" 9 " 78 " "
Potatoes *	...	17,500 "	(5,600 "	" 0 " 95 " "
Pepper	...	130 "	(41·6 "	" 11 " 0 " "
Laurel leaves	...	130 "	(41·6 "	" 7 " 0 " "
Onions	...	3,870 "	(1238·4 "	" 1 " 20 " "
Garlic	...	1,050 "	(386 "	" 3 " 50 " "
Salt	...	9,070 "	(2902·4 "	" 0 " 59 " "
Fruit acids	...	4,400 "	(1,408 "	" 7 " 50 " "
Tea	...	1,270 "	(406·4 "	" 48 " 0 " "
Sugar	...	7,560 "	(2419·2 "	" 8 " 15 " "
Spirits	...	5,860 <i>vedros</i>	(15,822 <i>gallons</i>)	" 9 " 59 " a <i>vedro.</i>

Total 395,396 *roubles.*

All these supplies were to be delivered in two equal portions on the 1st (13th) and 15th (27th) June, except the vegetables, for which special dates were fixed, *viz.*: (1) potatoes 5,000 *puds* each on the 15th (27th) August and 1st (13th) September, and 7,500 on the 15th (27th) September; (2) onions 550 *puds* each on the 15th (27th) August, 1st (13th) and 15th (27th) September, and 1,110 *puds* each on the 1st (13th) and 15th (27th) October; (3) garlic 200 *puds* each on the 15th (27th) August, 1st (13th) and 15th (27th) September, and 450 *puds* on the 1st (13th) October†. These articles were transported at Government expense.

The same Alafuzoff agreed to furnish the following articles for the troops, to last from 1st (13th) January to 1st (13th) July 1881:—

Weat flour	...	9660 <i>puds</i>	(3091·2 <i>cwt.</i> †)	at 2 <i>roubles</i> 80 <i>kopecks</i> a <i>pud.</i>
Rice	...	17270 "	(5526·4 "	" 2 " 55 " "
<i>Ghi</i>	...	3320 "	(1062·4 "	" 11 " 40 " "
Cabbage for <i>kvas</i>	...	30500 "	(9,760 "	§ 1 " 59 " "
Pepper	...	98 "	(31·36 "	" 12 " 50 " "
Laurel leaves	...	98 "	(31·36 "	" 8 " 50 " "
Onions	...	1,960 "	(627·2 "	" 1 " 35 " "
Garlic	...	490 "	(156·8 "	" 3 " 85 " "
Salt	...	5,250 "	(1,680 "	" 0 " 64 " "
Fruit acids	...	2,550 "	(816 "	" 7 " 45 " "
Tea	...	590 "	(188·8 "	" 49 " 0 " "
Sugar	...	6,710 "	(2147·2 "	" 8 " 45 " "
Spirits	...	600 <i>vedros</i>	(1,620 <i>gallons</i>)	" 11 " 50 " a <i>vedro.</i>
Vinegar	...	3,495 "	(9418·5 "	" 1 " 60 " "

Total 289,561 *roubles.*

In April 1880, in consequence of extreme necessity, there were prepared by Intendance official Iliashenko, at Fort Alexandrovsk and at Krásnovodsk, the following supplies for the Mangishlák camel-drivers, the prices being those for articles delivered at those depots and with transport thence at Government expense:—

<i>Ghi</i>	...	525 <i>puds</i>	(168 <i>cwt.</i>)	at 9 <i>roubles</i> 50 <i>kopecks</i> a <i>pud.</i>
Wheat flour	...	{ 1,000 "	(320 "	" 2 " 10 " "
	...	{ 800 "	(256 "	" 2 " 15 " "
Rice	...	680½ "	(217·76 "	" 2 " 50 " "
Tea	...	40 "	(12·8 "	" 46 " 0 " "
Sugar	...	160 "	(51·2 "	" 7 " 0 " "

Total 10,678 *roubles.*

* To be used instead of cabbage for seasoning till the new crop of cabbage was available, *i.e.*, till the 15th (27th) September 1880.—*Author.*

† The delivery of 2357·76 *cwt.* of flour, 3739·04 *cwt.* of rice, and 8·96 *cwt.* of garlic was delayed.—*Author.*

‡ 156·56 *cwt.* were not furnished.—*Author.*

§ 150·72 *cwt.* were not furnished.—*Author.*

As no articles of ships' rations could be prepared in the Caucasus, all were ordered on the Volga, except the fruit acids and rice, which were furnished in the Shemakha district or brought from Persia*.

Although in 1879 the ships' rations were prepared on the Volga, it was still considered necessary to pay Karganoff, out of the sums allowed for the expedition, $\frac{1}{3}$ th of the total in gold and bank silver. General Skobelev took another view of this matter, and not only did not put a limit to the use of paper money, but, with a view to circulating it through the country, he, on the 11th (23rd) May 1880, gave orders putting a stop to the issue of coin as pay to officers and men, and instead of the coin issued for $\frac{1}{3}$ th part of the pay, directed credit notes to be given, counting one *rouble* 47 *kopecks* in credit notes to the silver *rouble*. After this date, issues of coin were only to be made by his express order.†

The Intendance of the Trans-Caspian Field Force only acted for itself in the purchase of ships' rations in the following cases:—

When the advanced force was being equipped in May 1880, General Skobelev ordered it to be provided with 4 months' supplies, and as the amount of onions, garlic, and sugar in the depots did not suffice for this purpose, the Intendance concluded a contract with the merchant Teroganoff for the furnishing of two months' supply of these articles and also of lime-juice at prices appointed by the superintendent of the Baku supply-depot, with additions for packing, commission, &c., as follows:—Sugar 204 *puds* (65·28 cwt.) at 7 *roubles* 20 *kopecks*; tea 20 *puds* (6·4 cwt.) at 56 *roubles*; onions, 200 *puds* (64 cwt.) at 1 *rouble* 10 *kopecks*; lime-juice 1 *pud* (·32 cwt.) at 100 *roubles*; and vinegar 200 *vedrus* (540 gallons) at 2 *roubles* 10 *kopecks*,—total sum, 3,328 *roubles*. The expenses for the transport of these articles by sea from Baku to Chikishliar, their unloading at Chikishliar, and their transport thence to the depot were to be borne by Government.‡

In July 1880 when the Baku receiving board had rejected 2771·2 cwt. of rice supplied by Alafuzoff, and at Chikishliar, in consequence of want of transport the supply of this staple had become exhausted, and recourse had therefore to be had to the purchase of it from hand to hand at Chikishliar, in order to supply the drivers of the impressed Turkuman transport. Only 16 cwt. of rice could be obtained there, however, and though search was made for it from all the traders there it was evident that no more could be counted upon at reasonable prices till the new crop came in. On the 23rd July (1st August) Lieutenant-Colonel Shtsherbina expressed his willingness to take upon himself the supply of 6,000 *puds* (1,920 cwt.) of rice at 2 *roubles* 30 *kopecks* a *pud* including delivery, 2,000 *puds* to be delivered at the Chikishliar depot on the 1st (13th) August, and 2,000 each during the months of August and September. Shtsherbina's price was 10 *kopecks* a *pud* less than the contract price, and the cost of transport was thus also saved,§ but as Shtsherbina's conduct was at that time the subject of a Court of Inquiry, the Commander of the Expedition refused this contract. He had already furnished 646·4 cwt. of groats|| which had been rejected for bad quality.

* Report of the Operations of the Caucasus Intendance for the supply of the troops in Trans-Caspia during 1879 and 1880.—*Author*.

† General Order, Trans-Caspian Field Force, No. 21, dated 11th (23rd) May 1880.—*Author*.

‡ Diary of the Staff of the Force, 1880, No. 4, pages 147 and 148.—*Author*.

§ Report of the Intendant of the Force, No. 3599, dated 1st (13th) August 1880.—*Author*.

|| Report from the Intendant of the Force, No. 5051, dated 31st October (12th November) 1880.—*Author*.

Altogether in 1879 and 1880 ships' rations, tea, sugar, and spirits had been supplied for the troops in Trans-Caspia to the amount of 1,184,892 *roubles*.

In addition, General Skobelev had requested the Commander-in-Chief of the Army of the Caucasus to send to Trans-Caspia, by the 1st (13th) June, 200,000 rations of *Shtshi Kásha** and pea-soup.† Under arrangements made by the Central Intendence, there were therefore despatched by the Moscow Intendence of Danilevski's preserved foods the following:—25,000 rations of *Shtshi-Kásha*, 75,000 rations of oatmeal-soup, and 100,000 rations of pea-soup‡, and in addition, 1,280 cwt. of preserved vegetables.

All the articles of ships' rations prepared for the troops up to the 1st (13th) November 1879, were delivered in sacks and packages without a fixed weight, sugar, spirits, and *ghi* being delivered in barrels. From the 1st (13th) November 1879, however, in consequence of the requests of the Staff in Trans-Caspia, orders were issued that all supplies were to be delivered in double covers, *i.e.*, in sacks covered with matting, and weighing each not more than 5 *puds* (180·5 lb.) for convenience of camel carriage, *ghi*, spirits, and vinegar being in oak barrels holding 5 *vedros* (13·5 gallons).

To avoid insufficiency of packing materials at the disposal of the receiving boards, to wrap up, cover and place under the bales and to make up provisions and forage delivered in heavy packages into smaller ones, fit for camel carriage and also to permit of torn bags, &c., being replaced, &c., &c., there were bought by the Intendence at various times for the Trans-Caspian Store-depots 50,150 mats for 14,345 *roubles*, 124,611 sacks for 58,986 *roubles*, and 721·92 cwt. of rope§ or 11,854 *roubles*, and in addition 1,886 *roubles* were paid for making sacks out of Government material, giving a total of 87,072 *roubles* expended by the Intendence under this head.

Notwithstanding all this expenditure, a great want of packing material was felt. Thus at the end of October 1880, when the pressure of transport work on the Atrak line was at its height, a want of rope, mats, and sacks was felt at Duz-Olum.

Generally speaking, the packing of the supplies was a matter which disappointed the Commander of the Expedition very much, and caused him much trouble. From the very first day of the arrival of supplies at Krásnovodsk, General Skobelev was much displeased at the reports of Petrúsevitch as to bales of flour weighing 9 *puds* having arrived, and at those of the Chief Controller as to barrels of sugar weighing 30 *puds*. On Petrúsevitch asking that the 9 *pud* bales should be broken up at Astrakhán into bales weighing 5 *puds* only, the Intendant of the Circle replied that this work should be done by the Intendant of the force, to whom sacks had been sent. Not to mention that the breaking up of the bales could have been performed much better at Astrakhán, where there were artificers, it was impossible to do this on the east coast where no workmen could be hired.||

As regards the flour in the 9-*pud* bales, the Intendant of the Circle pointed out that it had been delivered in this way to the receiving boards, exactly as it arrived from the Upper Volga, and had been sent off without

* *Shtshi*, cabbage soup; *Kasha*, gruel.—*Trans*.

† Report from the Intendant of the Force, No. 36, dated 12th (24th) March 1880, sent to St. Petersburg.—*Author*.

‡ Diary of the Staff of the Force, 1880, No. 34, page 27.—*Author*.

§ Besides these, under arrangements made by General Skobelev, there had been obtained 3182·08 cwt. of rope for 63,703 *roubles*. Afterwards, the artillery authorities delivered 139·52 cwt. The total length of the rope supplied (including that received from the Intendence) was about 1,240 *versts* (826½ miles).—*Author*.

|| Report from General Petrúsevitch, No. 3235, dated 2nd (14th) August 1880.—*Author*.

being unpacked so as not to disturb the plan of transport. Bikhorst proposed to the Intendant of the force to have it repacked on the east coast by hired labour, for which purpose he sent 23,000 sacks to Chikishliar and Krásnovodsk, and to this the latter made no objections.* As is evident from a telegram from Karitski, the Intendant of the force, dated 19th (31st) July, the transfer of the flour from the bales to the sacks went on very slowly. The sacks, of which Bikhorst had spoken, did not arrive; and although the old ones were worn out, they had to be issued and patched together, three being usually required for one good sack.†

General Skobelev requested that flour should be sent in packages of 5 *puds*, and always made up with a double covering.‡ Then the provisions began to arrive in 5 *pud* packages, but in single covers, and this forced the Commander of the Expedition to request that 60,000 sacks might be sent to Chikishliar. This demand the Intendant could not fulfil before the middle of September as there were no sacks in the supply-depots and none could be bought.§

Only in one case did the Commander of the Expedition allow provisions to be delivered at Krásnovodsk in 7 or 9-*pud* packages, and that was in October 1880, when he required 32,000 cwt. of stores. As General Skobelev's demands were pressing, and navigation could not be open much longer, the Intendant designated as part of this supply 25952·1 bushels of flour, and 3356·7 of groats, then at Astrakhán, and not to lose time, the Commander of the Expedition resolved to take it over in the packages of 7 or 9 *puds*, thinking that these large packages could be used at Krásnovodsk or sent to points on the line of rail, in which cases the size of the packages would be of small importance.||

The despatch of sugar in 30-*pud* barrels was also put a stop to, and the rest of that article (1679·68 cwt.) was made up in packages of 8 loaves. As mats were used in packing, however, instead of sacks as per contract which caused a difference both in the price of the materials and in the strength of the packages, the Field Control protested against this, holding that losses in consequence of improper packing should not fall upon Government.

Pepper and laurel leaves were also taken over by the receiving boards in bad packages, which again called forth protests from the Control.

There was still more trouble about *ghi*. The superintendents of the magazines, when issuing *ghi* to the troops, made a deduction from each consignment for the weight of the barrel as it had been determined upon receipt from the contractor. Facts showed, however, that the weight of the barrels was very variable. Thus, in August 1880, the weight of a barrel was allowed for as 24·3 lb., while in reality they weighed 44·1 lb., so that the weight was too small by 20·2 lb., and consequently on each *pud* barrel of the contents weighing 162·5 lb., issued to the troops, 20·2 lb. of *ghi* were short.¶

* Telegram from Bikhorst to General Skobelev, No. 2482, dated 13th (25th) August 1880.—*Author*.

† Telegram from Karitski to Grodekoff, No. 218.—*Author*.

‡ Telegram from Bikhorst, No. 2482, and Ditto from General Skobelev to Bikhorst, No. 1176.—*Author*.

§ Report from General Petrúsevitch, No. 2513, dated 6th (18th) July 1880.—Telegram from General Skobelev, to Pavloff, No. 4170, dated 25th July (6th August), and to the Circle Intendant, No. 1138, dated 7th (19th) August 1880.—*Author*.

|| Telegrams from the Caucasus Intendant to General Skobelev, No. 4070, dated 17th (29th) October, and from General Skobelev to the Caucasus Intendant, No. 1817, dated 17th (29th) October.—*Author*.

¶ Report from the Commander of the 4th Battery 20th Brigade, No. 928, dated 12th (24th) August 1880.—*Author*.

The *ghi* leaked very much in the linden wood barrels and therefore the Commander of the Expedition requested the Caucasus Intendancy to see that the *ghi* delivered in the autumn was packed in oak barrels with iron hoops. General Skobelev only allowed this in view of the approaching cold weather, but for next delivery, demanded that the *ghi* should be made up in hermetically closed tin boxes, each weighing a *pud* and packed in sets of fours in wooden boxes.*

Before coming to this decision, the question of the packing of *ghi* had gone through the following phases. At Tiflis General Skobelev had pointed out to the Intendant the necessity of packing this article in tin boxes. On his arrival at Krásnovodsk, he received from the intendants a telegram stating that the packing of *ghi* in 18 lbs., ($\frac{1}{2}$ *pud*) tin boxes would cost 2 *roubles* 15 *kopecks* a *pud*, and, in addition to this, for every 6 cases there would be required a wooden box.

If General Skobelev thought this necessary, the Intendant requested him to telegraph. Half of the *ghi* ordered could then be delivered in 5 *pud* barrels and the other half in tin boxes; but this would delay delivery for two months.†

General Skobelev replied to the Intendant that he considered hermetically packing superfluous, as he was convinced that the *ghi* kept well in barrels.‡ In August he asked the Intendant, when concluding a contract for the delivery of *ghi* in 1881, to make a condition to the effect that it should be packed not in barrels but in hermetically closed boxes of 4 *puds* each.§ On the 22nd August (3rd September), however, a new contract had already been made for the supply of *ghi* in $4\frac{1}{2}$ *pud* barrels, and the contractor pointed out that he had already the barrels by him. To this Bikhorst added that the four-*pud* tin boxes would not support the weight of the *ghi*, and that tin boxes of smaller dimensions could not be got ready in a shorter space of time than $2\frac{1}{2}$ months, and then only at an increased price.|| To this General Skobelev gave the answer mentioned above.

On the whole, the packing of supplies, in spite of its importance in such a campaign as the Akhál-Tekke expedition, in which everything had to be carried on pack animals, was in most cases unsatisfactory. In consequence, so much waste was caused that the calculations of the Commander of the Expedition were nearly upset thereby.

General Skobelev, who did not like complaints being made was compelled to point out to General Pávloff that "articles were arriving in packages impossible to load," and that he could not "take the responsibility of moving such packages to the front, as it was impossible to load them."¶ From the records of proceedings of boards in the Diary of the Staff, it is evident that, on arrival of the stores on ships at Krásnovodsk, only $\frac{5}{8}$ ths of the packing material was serviceable.** Although this was explained by the workmen having torn the

* Telegram from General Skobelev to the Intendant, dated 6th (18th) September 1880, No. 1394. Telegram from the Caucasus Intendant to General Skobelev, dated 13th (25th) September, No. 2891. *Author*.

† Telegram from the Caucasus Intendant, No. 1158, dated 4th (16th) May 1880.—*Author*.

‡ Reply to above from General Skobelev, from Krásnovodsk, dated 4th (16th) May 1880.—*Author*.

§ Telegram from General Skobelev to the Caucasus Intendant, No. 4825, dated 19th (31st) August.—*Author*.

|| Telegram from the Caucasus Intendant to General Skobelev, No. 28215, dated 5th (17th) September.—*Author*.

¶ Telegram from General Skobelev, No. 5090, dated 12th (24th) September 1880.—*Author*.

** Proceedings of a Military Board, dated 11th (23rd) June 1880, No. 84, in the Diary of the Staff, 1880, No. 20, page 44.—In Proceedings No. 48, in No. 29 of the Diary it was stated: "we inspected the bags of flour in the hold. They appeared to be of bad stuff and much torn, and the third row from the top was covered with a thick layer of loose flour."—*Author*.

packing material with their iron hooks in the hurry of loading and unloading, this made matters no better for the Commander of the Expedition. If, *e. g.*, 10,000 *puds* weight of stores were sent off to any place, he might at any time receive (and actually did receive) a report that only 8,000 *puds* weight had arrived. General Annenkoff reported that at Micháelovsk supplies were delivered in such packages that they would not bear transport on pack animals or even by rail.* The bad packing compelled the Commandant of the lines of communication to request that 1,000 bags and sacks and 500 mats, and also packing materials might be furnished to each of the supply-depots at Mulla-Kári, Bála-Ishem, Kazánjik, and Kizil-Arvát.†

In the transport of the various supplies from one magazine to another, there was not only waste and leakage far above the normal rate but whole bags, barrels, &c., were lost. Thus, *e. g.*, among the articles sent off from Duz-Olum and delivered at Bámi by convoys on the 25th June (7th July) and 9th (21st) July there were the following losses :—

	Despatched.	Received.	Loss.
25th June (7th July) ...	23,270 <i>puds.</i>	17,445 <i>puds.</i>	5,825 <i>puds.</i>
9th (21st) July ...	12,357 "	9,415 "	2,942 "
Total ...	35,627 "	26,860 "	8,767 "
	11400·64 cwt.	8595·2 cwt.	2805·44 cwt.

showing a loss of 25 *per cent.* on the quantity despatched.

The huge loss on the convoy of the 25th June (7th July) causes us to show in detail the loss on each article† :—

	Despatched.	Not received at Bámi.
Biscuit ...	5,699 <i>puds.</i> 28 <i>puds.</i>	491 <i>puds.</i> 38 <i>puds.</i>
Oats ...	5,396 " 20 "	2,236 " 7 "
Rye flour ...	5,392 " 28 "	849 " 9 "
Buckwheat groats ...	2,409 " 0 "	676 " 21 "
Wheat flour ...	679 " 8 "	21 " 11 "
Rice ...	2,605 " 16 "	1,253 " 28 "
Fruit acids ...	288 " 28 "	84 " 1 "
<i>Ghi</i> ...	506 " 29 "	163 " 16½ "
Tea ...	7 " 4 "	1 " 16 "
Sugar ...	180 " 32 "	43 " 34 "
Dry cabbage ...	91 " 38 "	1 " 12 "
Garlic ...	6 " 34 "	1 " 9 "
Lime-juice ...	1 " 0 "	0 " 0 "
Pepper ...	8 " 35 "	0 " 35 "
Laurel leaves ...	6 " 12 "	0 " 12 "
Total ...	23,270 " 32 "	5,825 " 10 "

* Report from General Annenkoff, No. 456, dated 1st (13th) October 1880.—*Author.*

† Report from General Annenkoff, No. 363, dated 25th September (7th October) 1880.—*Author.*

‡ Report from Kachurin, No. 75, dated 12th (24th) June 1880.—*Author.*

In a convoy sent out from Krásnovodsk on the 21st July (2nd August) with 4,374 *puds* weight of stores, 3,974 were delivered at Bámi, showing a loss of 400 *puds* or 10 *per cent*.*

Although the distance from Krásnovodsk to Bámi is almost thrice as great as that from Duz-Olum to the latter place, the loss on stores sent from Duz-Olum was always greater than that on those sent from Krásnovodsk, and to enquire into this matter, a Controller was sent to Duz-Olum. The result of his examination of the Duz-Olum depot was that the excessive loss on articles sent from that place was owing to two causes,—the incorrect statement of the stores sent to the front, and loss or robbery on the road. The incorrect statement of the stores sent up to the front was discovered from the weight of the bags with provisions entered as having been sent up, not agreeing with the weights entered against them on receipt in the depot. Granted that this incorrectness was the result of chance, and was only caused by the hurry of despatch or by mistakes in weighing, the balance of the quantity despatched should have been in the depot. This, however, was only the case for some articles; but in the case of buckwheat groats, not only was there no balance left, but there was even a deficiency of 325.028 bushels. Of the remaining articles, the inaccuracy of the statements of the despatch of which had been discovered, there was a balance left as follows:—

Loss on the inaccurately stated quantity despatched.				Surplus left in the supply-depot.	
Rye flour	...	849 <i>puds</i>	9 pounds	812 <i>puds</i>	21 pounds
Fruit acids	...	84 "	1 "	107 "	20 "
Rice groats	...	1,253 "	28 "	153 "	7 "

Thus the inaccuracy in the statement of the despatch of rye flour and fruit acids was almost completely balanced by the surplus, but only a very small surplus was left to account for the loss on rice groats.† For this loss, therefore, the superintendent of the depot was held to be personally responsible.

The loss of supplies on the march was caused partly by the badness of the packing material, and partly by the loss of whole sacks, packages, or barrels, of which there were deficient on arrival at Bámi in the convoy of the 25th June (7th July) 138, and in that of the 5th (21st) July 180½, and in that of the 21st July (2nd August) 8½.

The whole losses of tea and sugar would not have been caused by leakage, and, besides, these articles were lost in quite too improbable quantities. Thus, *e. g.*, the loss of tea and sugar in the convoys arriving at Bámi on the 25th June (7th July) and 9th (21st) and 21st July (2nd August) was as follows:—

	Tea.				Sugar.			
	Despatched.		Lost.		Despatched.		Lost.	
26th June (8th July)	7 <i>puds</i>	4 pounds	1 <i>pud</i>	16½ pounds	180 <i>puds</i>	43 <i>puds</i>	0 pounds.	
9th (21st) July	36 "	20 "	2 "	36 "	164 "	1 "	38 "	
21st July (2nd August)	10 "	16 "	0 "	7 "	159 "	13 "	0 "	

* Diary of the 3rd Section of the Staff of the Trans-Caspian Field Force, 1880, No. 28, Part 1, page 247. In Appendix No. 93, see comparative and tabular statement of loss on article during transport as compared with the table attached to Article 238, Vol. XII, page 16 of the Military Regulations and with the calculations of the Committee appointed to weigh the articles transported.—*Author*.

† Report from the Acting Field Controller, Kachurin, No. 91, dated 29th July (10th August) 1880.—*Author*.

These articles were plundered by the camel-drivers who broke off the tips of the sugar-leaves and ripped open the canvas of the cases to let the tea run out.

The above amounts of loss, in the opinion of the Chief Controller, showed that till the final organisation of the transport the losses of supplies would remain at a very high figure; for, if for the distances between Duz-Olum and Bámi the loss was 25 *per cent.* when the lines of communication were lengthened, the losses would naturally increase, and besides causing great waste of Government money they might not only have a hurtful effect on the operations, but might even bring them to a complete standstill.

As the huge waste and leakage noted in the first two convoys were to be attributed not so much to the unavoidable disadvantages of pack transport as to the irregularities in despatch committed by the superintendents of the supply-depot, in the middle of August the Chief Controller ordered that these persons should be present when each convoy was loaded, and also at the receipt of supplies in their depots. Control officials were ordered not to permit despatch of stores in packing material of bad quality, and such officials were permanently stationed at Chikishliár and Krásnovodsk to superintend the despatch of stores, and at Bámi to look after their receipt. This procedure could not, however, be applied to Duz-Olum, as there were no more Control officials available. In November, when the Control was strengthened, it became possible to establish a similar system of superintendence along the Micháelovsk line. In addition, the Commander of the Expedition gave orders that, on supplies being sent off, a military board was to ascertain the weight of the articles in their sacks or bales, and the Intendance was to inform the superintendent of the depot in good time of the amount to be despatched, so that the board might get the weighing done without delaying the camels.* As for tea and sugar in particular, the road commandants were ordered to pay particular attention to the packing of these supplies, and have the numbers and weights of the packages communicated to the *Caravan-Báshis*, warning them at the same time that they and their drivers were held more responsible for any plundering of them than of any other articles, as tea and sugar did not waste, and a deficiency in them could only be attributed to robbery. The commanders of escorts were to pay particular attention to the packages with tea and sugar, and were to have them stacked separately at halts and placed under a special sentry.† The drivers were to be punished for any loss of tea or sugar.‡

All supplies arriving at Bámi were to be weighed in the presence of a military board. At the end of October, when the pressure of transport work reached its height, it was not possible to weigh each package, and therefore orders were given to receive the supplies not by weighing each, but by counting the packages, weighing some of them, and then striking an average.§

On the above regulations coming into effect, the reports of enormous losses and leakage began to diminish in number, although the loss was still much above that allowed by law. Thus, for example, the amount of loss in the

* Telegram to Artsishevski, No. 3915, dated 18th (30th) July 1880.—*Author.*

† Instructions to Artsishevski, No. 5139, dated 13th (25th) September 1880.—*Author.*

‡ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 29, page 118.—*Author.*

§ Diary of the Staff, No. 29.—These orders were rescinded on the 29th January (10th February) 1881; and after that, all bales were weighed.—Instructions to the Intendant, No. 49, dated 26th January (7th February).—*Author.*

supplies arriving at the Bámi depot, according to the Proceedings of the Boards, drawn up with the aid of a Control Official, was as follows:—

Whence sent.	Date of Board at Bámi.	Deficiencies in supplies.
Krásnovodsk ...	30th October (11th November).	Biscuits, 1,171 <i>puds</i> .
	10th (22nd) November.	Mats, 815 <i>puds</i> . Onions, 3 <i>puds</i> 27 pounds. Rye flour, 682 <i>puds</i> . Horse biscuits, 134 <i>puds</i> 10 pounds. Tea, 12 <i>puds</i> 7 pounds. Sugar, 148 <i>puds</i> 13 pounds. Wheat flour, 468 <i>puds</i> 16 pounds. Cakes, 242 <i>puds</i> 7 pounds. Biscuits, 85 <i>puds</i> 10 pounds. Oats, 140 <i>puds</i> 9 pounds. Rye flour, 134 <i>puds</i> 5 pounds.
Band-Hassan, ... Mulla-Kári, and Bála-Ishem.	10th (22nd) November 26th November (8th December) and 5th (17th) December.	Buckwheat groats, 66 <i>puds</i> 38 pounds. Biscuit, 29 <i>puds</i> 34 pounds. Wheat flour, 244 <i>puds</i> 13 pounds. Rice groats, 218 <i>puds</i> 5 pounds. Fruit acids, 27 <i>puds</i> 22 pounds. Spirits 37 <i>vedros</i> . <i>Ghi</i> , 89 <i>puds</i> 2 pounds. Cabbage, 588 <i>puds</i> 12 pounds. Oats, 170 <i>puds</i> 14 pounds. Oats, 851 <i>puds</i> 7 pounds.
Duz-Olum ...	30th November (12th December), 2nd (14th) December.	Spirits, 39 <i>vedros</i> . Sugar, 5 <i>puds</i> 2 pounds. <i>Ghi</i> , 7 <i>puds</i> 9 pounds.
	5th (17th) December ...	Spirits, 1 <i>vedro</i> . Wine, 3 <i>vedros</i> . <i>Ghi</i> , 13 pounds. Horse-biscuits, 57 <i>puds</i> .
Mulla-Kári ...	5th (17th) December ...	Groats, 65 <i>puds</i> 31 pounds. Spirits, 112 <i>vedros</i> .

It is very instructive to remark that in the camel transport furnished by Gromoff, who became answerable for the waste and loss of stores, the amount of losses of supplies, materials, &c., amounted to 9,569½ *puds* (3062·24 cwt.) equal to a sum of 31,864 *roubles*. The value of the articles being reckoned at cost price, *plus* the cost of transport by land and sea to the point where they were delivered over to him, and in this sum of 31,864 *roubles* is also included the loss allowed by law. How insignificant were these losses may be judged from the fact that Gromoff received for transport alone the sum of 561,902 *roubles*.*

The storing of supplies presented great difficulties. Only at Krásnovodsk' Chikishliár, and Duz-Olum were there properly covered store-houses for ships

* Report from the Intendant of the Force in Trans-Caspia, No. 451, dated 25th April (7th May) 1881. In Appendix No. 74 see Return of Deficiencies amongst the Articles, &c., transported by the Merchant Gromoff.—*Author*.

rations; at the other stations they had to be placed partly in cellars partly in the open air. The fruit acids therefore evaporated, the vegetables rotted, the wheat flour and rice got spoiled, and the *ghí* always melted and became sour.

The supply-depots in Trans-Caspia were at first supplied with covering materials from the stores at Tiflis, Baku, Darband, and Petrovsk. These consisted of tarpaulins for waggons and pack animals, mats, and other magazine stores. Besides these, 600 tarpaulins for bales were sent by the Central Intendance to the receiving board at Astrakhán from Odessa.

As of packing so too a great want of covering materials was felt. Thus, in November 1880, when the rains began, General Skobelev had to order the tarpaulins to be taken off the bales at Duz-Olum and Chikishliár and sent up to Bámi, the bales at those two former points being covered with mats. "It is better that stores should be spoiled in rear than at Bámi," he wrote. The tarpaulins, however, never reached Bámi, and the bales there had to be covered with bedding felts ordered for the men.*

To save the supplies from becoming spoiled, they had to be issued to the troops in increased quantity. Thus, for example, when in January 1880, in consequence of the order not to issue supplies in kind to the *jigits*, but to give them money to the amount of the cost price of their rations to Government, a large surplus of wheat flour and rice was formed in the magazines on the Atrak line; and as these articles when in bales do not keep for more than three or four months, to avoid loss, orders had to be given to issue wheat flour to the troops instead of half of the ration of rye flour, and the issue of rice was increased from 4·8 to 9 ounces. In the middle of June 1880 this order was rescinded after all the surplus of flour and rice remaining from 1879 had been used up, and when there was no rice at all at Chikishliár.†

In May 1880, to avoid loss of cabbage for *kváss* on the approach of the hot weather, and as three battalions were being sent back to the Caucasus, an issue of 9 lb. per man *per diem* was ordered.

The disadvantages of keeping supplies in bales covered with mats in great heat, were seen in the bad effects upon the quality of the flour and groats. In October 1880, when the flour in the Bámi hospital and the bread baked from it were inspected, it was found that the flour was dark-coloured and had a musty smell, while the bread would not rise and was discoloured, musty, and bitter, and could not even be used for bread-soup. In addition, there was very little of it.‡

The supply of meat from the beginning of the expedition of 1879 and up to the 1st (13th) January 1880 was carried out under arrangements made by General Lázareff, by the Contractor Karganoff, beef or mutton being delivered direct to the troops at the following prices *per pud*:—at Chikishliár, 4½ *roubles*; at Chát, 5 *roubles*; and, when troops were on the march from Chikishliár to Yágli-Olum, 4 *roubles* 75 *kopecks*; from Yágli-Olum to Chát, 5 *roubles*; from Chát to Band-Hassan, 5½ *roubles*. Of the money paid to Karganoff for meat, ¼th was in gold or bank silver.§ The delivery of meat

* Telegram from General Skobelev, dated 11th (23rd) November 1880, No. 2124. Diary of the Staff, 1880, No. 27, pages 246 and 270.—*Author*.

† Report from the Intendant of the Force to the Commander of the Expedition, No. 243, dated 9th (21st) July 1880.—*Author*.

‡ Proceedings of a Military Board, dated 20th October (1st November) 1880, No. 29, in Staff Diary, No. 3, page 273.—*Author*.

§ Report of the Operations of the Caucasus Intendance for the Supply of the Troops in Trans-Caspia in 1879 and 1880. Karganoff furnished 24,960 cwt. of meat and received 586,100 *roubles*.—*Author*.

to the troops on the Atrak line, to the detachments marching along it, and to the troops which might arrive from the west coast of the Caspian, for the period from the 1st (13th) January to the 1st (13th) July 1880, was entrusted, by advice of the Caucasus authorities, to an official of the Caucasus Intendancy on special duty, Actual State Councillor Michelson, who was to purchase in the trade, as no good offers for contracts had been received. The price per *pud* of meat was fixed as follows:—At Chikishliár, 4 *roubles* 15 *kopecks*; at Chát, 4 *roubles* 65 *kopecks*; at Duz-Olum, 5 *roubles* 10 *kopecks*; and, for troops on the march from Chikishliár to Chát, 4 *roubles* 50 *kopecks*; and from Chát to Duz-Olum, 4 *roubles* 90 *kopecks*. For these prices Michelson bound himself to supply mutton and salt meat to the troops, if the replacement of beef by those two were permitted by the local authorities*.

The troops at Krásnovodsk were supplied with beef by a contractor with whom a contract had been made by the Caucasus authorities, according to which he was not, however, bound to supply meat to the troops at Micháelovsk, and so, when a company and 25 Cossacks were sent there in April 1880, he refused to supply them. The Caucasus authorities therefore ordered General Petrúsevitch to make his own arrangements for the supply of meat at Micháelovsk†.

On the arrival of General Skobeleff in Trans-Caspia, the Caucasus Intendant informed him that Michelson would take upon himself to supply meat at Chikishliár, Chát, and Duz-Olum after the 1st (13th) July and up to the 1st (13th) January 1881 if 40 *kopecks* a *pud* were added to the prices, and if, for the troops who were to move forward to occupy the entrances to the *oasis*, 7 *roubles* 10 *kopecks* a *pud* were allowed for meat.‡ Almost at the same time, however, the Intendant of the Force received notice of an Armenian, Melikoff, and a company of three Khivans, Hákim-Bai, Niáz-Muhammad, and Khudai-Berdieff, being ready to supply meat. The offer of the first was only for a distinct area, but the Khivans undertook to supply meat wherever our troops marched. The price of meat, for troops in front of Duz-Olum, demanded by Melikoff was 5 *roubles* 55 *kopecks* per *pud*, and by the Khivans, for a period of 3 months, 5 *roubles* 40 *kopecks*. Both parties requested, in addition to the supply of meat to the advance force, to be entrusted with its supply at other points from the 1st (13th) July, Melikoff asking, for the whole line from Chikishliár to Duz-Olum, 4 *roubles* 50 *kopecks*, and the Khivans 4 *roubles* 40 *kopecks*. Neither party offered security for the punctual fulfilment of their contract, but consented instead to receive no money for the first month, which should be considered as security for the completion of their contract. They, in addition, made a condition that a guard should be furnished for their cattle and that, in the event of its being driven off by the enemy, they should be indemnified for all the cattle lost.

The conditions made by both parties, compared with those of 1879, when Karganoff received 5 *roubles* 50 *kopecks* at Duz-Olum ($\frac{1}{3}$ in gold), and without giving any security, and also with those of Michelson, were very favourable to Government, notwithstanding that it was a matter of great necessity for us that cattle in Persia were rising in price on account of their export to the Government of Baku, where there had been great losses and

* Report from the Caucasus Intendancy to the Staff of the Trans-Caspian Force, No. 485, dated 7th (19th), 8th (20th) January 1880.—Michelson delivered in all 2518·4 cwt. of meat at Chikishliár, 3054·08 at Chát, and 2882·24 at Duz-Olum, for 122,975 *roubles*.—*Author*.

† Report from General Petrúsevitch, No. 1517, dated 14th (26th) May 1880.—*Author*.

‡ Telegram from Bikhorst, No. 1143, dated 3rd (15th) May 1880.—*Author*.

that the price of meat had risen greatly.* General Skobelev confirmed the contract with the Khivans, but would not consent to the contractors being paid for cattle driven off by the enemy, except in cases where they were so captured in the presence of the troops.† On the contract with the Khivans being concluded, they bound themselves to supply meat from the day of the advance force leaving Duz-Olum, in the proportion of $\frac{1}{4}$ beef and $\frac{3}{4}$ mutton wherever the troops marched, at a price of 5 roubles 40 kopecks a pud. The length of time for which the contract was made was two months from the date of the troops leaving Duz-Olum, and at the end of this period the Khivans bound themselves to continue to supply meat up to the 1st (13th) January 1881, but only at the points where the troops actually were at the end of the first two months, and on the condition that the Intendance should give them two weeks' notice of the stoppage or prolongation of their supply being required. In taking this contract, the Khivans made it an indispensable condition that they should also be entrusted with the supply of meat on the line between Chikishliár and Duz-Olum from the 1st (13th) July, i.e., from the termination of Michelson's contract.‡

Thus General Skobelev's confidence, expressed at Tiflis, that he would be able to completely ensure the supply of meat to his troops, was fully justified. On the 25th July (6th August) he telegraphed to General Pávloff that he was becoming more and more convinced that in the matter of the supply of meat he would be able to dispense with the aid of the Intendance, and that it was in any case better and cheaper, as otherwise the cattle would have to be brought across the sea.§

Regarding the supply of meat to the troops at Krásnovodsk and Micháelovsk from the 1st (13th) July to the 1st (13th) January 1881, as no contractors appeared, the delivery of meat at these points was entrusted to Michelson, who bought in the trade and supplied the meat at 6 roubles per pud for fresh and 5 roubles 70 kopecks per pud for salt meat, the transport of the cattle to the east coast being undertaken by Government.|| The Intendant was, however, informed that the replacement of fresh meat by salt would not be permitted for any cause whatever for the troops on the east coast of the Caspian, and that the contractor was therefore to supply none.¶

On the advance force leaving Duz-Olum, the contractor issued sheep to the troops, calculating the weight of all at one pud 15 pounds (49·6lb). On the arrival of the force at Khwája-Kala, however, it was found that the weight of the sheep had diminished during the march, and therefore a board was assembled to determine the mean weight of the sheep, and if they had diminished in weight since starting, the actual weight was to be taken as the mean.** The total weight of 13 sheep taken from various corps at Khwája-Kala was 527·7 pounds and the mean weight was therefore one pud $\frac{1}{2}$ pound (36·55 lb.).††

* Report from the Intendant, Major Yepifánoff, to the Temporary Commander of the Troops, No. 2620, dated 16th (28th) May 1880.—*Author*.

† Instructions to the Intendant, Yepifánoff, No. 467, dated 17th (29th) May 1880.—*Author*.

‡ Report from the Intendant of the Trans-Caspian Force, No. 2661, dated 18th (30th) May 1880.—In Appendix No. 95, see Contract for the Supply of Meat concluded with Khivan Merchants.—*Author*.

§ Telegram No. 4170.—*Author*.

|| Report from the Caucasus Intendant to General Skobelev, No. 24017, dated 13th (25th) June 1880.—*Author*.

¶ Report from General Petrúsevitch, No. 2758, dated 17th (29th) July 1880.—*Author*.

** General Order, Trans-Caspian Field Force, No. 75, dated 3rd (15th) June 1880.—*Author*.

†† General Order, Trans-Caspian Field Force, No. 84, dated 6th (18th) June 1880.—*Author*.

On the advance of the troops from Khwája-Kala to Bámi the contractors had 100 horned cattle and 1,000 sheep,* and those were generally very good and gave no cause of complaint to the troops.

It has been noticed above that the Boards held at Tiflis considered it a very necessary measure of precaution, in case cattle did not reach the force in time, to form a reserve of live cattle near Petrovsk, sufficient to supply rations for 8,000 men for two months, *i.e.*, 3,840 cwt. of meat, this reserve consisting of $\frac{1}{10}$ th horned cattle and $\frac{9}{10}$ ths sheep. The whole was left in the hands of a contractor, under the superintendence of the Intendence, and was to be ready to be sent at any time to the east coast of the Caspian.

In execution of this order the Board of the Caucasus Military District entrusted the formation of a reserve of cattle on the west coast to Actual State Councillor Michelson, who bought in the trade on the following conditions; the keeping up of the reserve to the required extent and the feeding of the animals were the duties of Michelson. The price for each *pud* of meat was 6 *roubles* 50 *kopecks*. On the demand of the authorities, the whole or any portion of this reserve was to be at the ports of embarkation within seven days. The contractor was bound to hand over the reserve or parts of it, as might be directed, to individuals or to a board named by the authorities at Krásnovodsk and the number of animals delivered was to be verified, and the mean weight of the horned cattle and sheep determined in concert with the contractor or his representatives. If, on transport of the reserve to Krásnovodsk, it was found necessary to supplement it, the contractor was bound to do so within a month, the animals being transported at Government expense.†

The reserve was to be kept up from the 1st (13th) July; but, as the date of the departure of the troops for the east coast of the Caspian was put off, the Caucasus Intendant asked General Skobeleff from what time it was to be kept up. The latter could not at that time give an answer as the situation was not quite clear. In any case, he was of opinion that there was no hurry for it.‡ On a second enquiry from the Intendant on the same subject, General Skobeleff replied that this reserve was still unnecessary, and that he would give the Intendant a month's notice before it was required.§ Finally, on the 15th (27th) August, General Skobeleff informed the Caucasus Intendant that a reserve of meat on the west coast would not be required at all.||

On the 1st (13th) July the contract made with Michelson for the supply of meat on the line from Chikishliár to Duz-Olum expired, and the Commander of the Expedition entrusted the supply to the company of Khivans for two months, *i.e.*, till the 1st (13th) September, at a price of 4 *roubles* 50 *kopecks* a *pud*. They gave no money security for the proper performance of their contract, but, instead, the Intendence made no payment for meat for the first month.¶ This money was to be retained by Government till the contract was completed and accounts finally settled up. If it were required to prolong the contract till the 1st (13th) January 1881, the Khivans bound themselves to

* Report from Major Yepifánoff, No. 56, dated 8th (20th) June 1880.—*Author*.

† Report from the Caucasus Intendant to General Skobeleff, No. 24017, dated 13th (25th) June.—*Author*.

‡ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 4, page 187.—*Author*.

§ Telegram from General Skobeleff to the Caucasus Intendant, No. 4352, dated 29th July (2nd September).—*Author*.

|| Telegram from General Skobeleff to Bikhhorst, No. 4716, dated 15th (27th) August.—*Author*.

¶ Afterwards the Commander of the Expedition gave orders for $\frac{1}{4}$ th of the estimated contract sums to be withheld.—Instructions to the Intendant of the Force, 8975, dated 19th (31st) July 1885.—*Author*.

furnish meat, but on condition of the Intendence giving them two weeks' notice before stopping or prolonging the supply.*

At the end of the period for which the Khivans had contracted to furnish meat from Chikishliár to Duz-Olum, [1st (13th) September], and from Duz-Olum to Bámi, [1st (13th) August], a new contract at considerably lower prices was concluded with them for the period till 1st (13th) January 1881. Thus the price of a *pud* of meat between Chikishliár and Duz-Olum was fixed at 3 *roubles* 89 *kopecks*, and from Duz-Olum to Bámi, and, in the event of an advance of the troops, beyond Bámi also, at 4 *roubles* 60 *kopecks*. Afterwards, in view of the approaching opening of the Micháelovsk line, they undertook to supply meat on it from Bámi to Mulla-Kári at 4 *roubles* 60 *kopecks*. From Chikishliár to Bámi and thence to the front they were to supply $\frac{3}{4}$ beef and $\frac{1}{4}$ mutton, and from Kizil-Arvát to Mulla-Kári all mutton. At points at which more than 200 men were stationed they were to kill the cattle and issue the meat, but on the Micháelovsk line they were to issue the sheep alive at a mean weight agreed to by the troops. In addition they were bound to keep at Duz-Olum, Bámi, and other points where milk was required for the sick three milch cows and five milch goats. Neither security nor fines for breach of contract were to be deducted.

The Khivans, who behaved very well when the supply of meat on the Atrak line only was in their hands, could not manage properly, when the Micháelovsk line also was handed over to them. Thus, at Társakán in August there were complaints that the contractors were delivering no horned cattle, but only sheep, although the strength of the troops exceeded 200. Some commanding officers pointed out that in issuing live sheep to the troops, the Khivans were giving animals of weights differing from those stipulated.† From numerous proceedings of the Field Control it is evident that the weight of these animals diminishes almost by 33 *per cent.* Thus, *e.g.*, the total weight of 10 head delivered to the 2nd company, Daghistán Regiment, on the 17th (29th) December and represented as weighing 10 *puds* 17 pounds (376·3lb.) was only 7 *puds* 7 pounds (259lb.) and again 11 head issued on the 18th (30th) December as weighing 12 *puds* 4 pounds (438 lb.) weighed only 7 *puds* 12 pounds (263·5 lbs.) These reports made the Chief Controller request the Commander of the Expedition to take away from the contractors the right of issuing cattle at an average and not the actual weight.

Still, it must be said that the Khivans fulfilled their contract conscientiously, although they constantly asked subsidies, even as much as 20,000 *roubles*, which we were obliged to grant them.

They first began to fail in October at Mulla-Kári‡ and then in November at Micháelovsk, where the troops often remained without meat, so that the road commandant had to resort to extreme measures and buy sheep at Baku, from a contractor who delivered meat at Micháelovsk, and from the Turkumáns living round Krásnovodsk.§ Much money had to be paid in this way, *e.g.*, the merchant Kasparoff of Shusha demanded 19,096 *roubles* for 1,736 sheep, or at the rate of 9 *roubles* 90 *kopecks per pud*, a sheep weighing on an average 1 *pud* 4 pound (39·7 lb). At Kazánjik, Kizil-Arvát, and Bála-Ishem, on the Micháelovsk line, 400 sheep had to be kept up to guard against the contractors running short of meat, and this forced the commandant of that

* *Vide* Appendix No. 5.—*Author.*

† Report to the Detachment Intendant No. 4372, dated 14th (26th) August 1880.—*Author.*

‡ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 4, page 458.—*Author.*

§ Telegram from Annenkov, No. 2030, dated 22nd November (4th December).—Report from Colonel Ivanoff, No. 462, dated 12th (24th) February 1881.—*Author.*

line to point out that these animals require to be fed on dry forage, and to recommend that 4·5 lbs. of hay should be issued to each *per diem*. The Chief Controller protested against this, as he considered that the maintenance of these cattle to guard against failure of the contractor would cost a great deal of money, as the price of hay was above a *rouble a pud*, and that therefore it would be better to issue these 400 sheep to the troops as part of their rations. The commander of the lines of communication expressed his approval of these recommendations.

Once there was no meat at Duz-Olum,* and even at Bámi, on the 26th November (8th December), when Haidaroff's first column advanced, there was only one day's supply of meat left, and, as the contractor had no money, General Petrúsevitch was forced to send an officer with the contractor's clerk to Nukhur to buy cattle both for the other columns still at Bámi and for the garrison of that place. The cattle purchased were to be delivered at Archmán and Durun and handed over to the contractor, who issued the meat according to the conditions of contract.†

On the first alarming news as to the incapacity of the Khivan contractors, the Commander of the Expedition entered into negotiations with the merchant Gromoff for the supply of meat. When the news was received at Chikishliár that one of the Khivans was detained beyond the Atrak by the Turkumáns as a pledge that the camels hired by Gromoff would be sent back from Duz-Olum, General Skobelev, having provided the troops at Sámurskoye and part of those on the line to Bámi with sheep captured from the enemy, formally applied to Gromoff to undertake the supply of meat to the troops on the Micháelovsk line‡ and then the flocks captured from the enemy at Kalát and Yegyán-Bátir-Kala were handed over to him on special terms.

From the beginning of military operations we had been face to face with the question: what to do with cattle captured from the enemy? The past had taught us that troops cannot manage cattle, that great misuse is made of them, that tactical unity, so important in war, is destroyed, and that on the other hand little material benefit is derived by the troops from their being supplied with food to last a long time. After the Chandir affair on the 15th (27th) July 1873, 14,000 head of cattle were captured from the Turkumáns, and five days afterwards, although there was abundance of forage and the troops had had three weeks' rest at Iliáli, only 200 animals could be collected to supply the wants of the troops. After General Kaufmann's cavalry affair at Min-Tapa on the 9th (21st) September 1875, all the captured cattle were sold for next to nothing the day after the occupation of Osh on the 12th (24th) September. The money was naturally distributed among the Cossacks, because the General was convinced that it was impossible to supply the troops from the captured cattle or, generally, to arrange in any other way. On the 13th (25th) November 1875, after the affair at Balikchi, the enemy left in our hands 10,000 head of horned cattle alone. This booty was only made use of for a few days; but, as no account could be taken of it, the issue of ration meat to the troops was not stopped. During the Alai expedition in the summer of 1876, the same thing happened. The troops required meat while the captured cattle were being sold during the night outside the camp to different speculators. Finally,

* Telegram from General Petrúsevitch, dated 27th November (9th December) 1880.—*Author*.

† Report from General Petrúsevitch to the Commander of the Expedition, No. 297; dated 2nd (14th) December.—*Author*.

‡ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 4, page 156, proposal to Gromoff, No. 8173, dated 7th (19th) December 1880.—*Author*.

the large number of cattle captured after the Khaskioiski affair were of no use, and in a moral sense were actually a disadvantage.

With this experience, it would have been wrong to do nothing to guard the interests of Government by a proper and cheap means of securing the meat supply. The cattle captured at Kalát and Yegyán-Bátir-Kala were therefore sold to Gromoff at 3 *roubles* 75 *kopecks* per sheep and 25 *roubles* per horned animal, on the condition that he would supply the troops from Chikishliár to Bámi with meat at 5 *roubles* a *pud*, and those from Micháelovsk to Bámi and thence to Gok-Tapa at 6 *roubles* a *pud*. * A board, assembled to determine the average weight of the sheep and goats, considered it proper to accept an issue of meat to the troops at the following rates:—Large goats, 32·4 lb., small goats, 11·7 lb., and sheep 33·3 lb. The contractor was not to issue to the troops only large or small sheep and goats, or exclusively sheep or exclusively goats, but was to issue all in equal proportions and according to weight. In determining the mean weight, the board did not take account of the head or foot and diminished the actual weight by 1·8 lb. as sheep and goats invariably lose bulk.† In all, cattle to the amount of 32,961 *roubles* were sold to Gromoff.‡

The alarming news as to the incapacity of the Khivans compelled General Skobeleff immediately after the occupation of Yegyán-Bátir-Kala to send orders to our agent in Persia, Lieutenant-Colonel Diakoff, to at once get ready slaughter cattle for 8,000 men for a month, $\frac{1}{2}$ to be horned cattle, and the rest sheep, and to send them as bought to Bámi.§

Lieutenant-Colonel Diakoff, on receiving this order, sent Lieutenant Krish-topenko to the Mana valley. This officer managed matters very well, and on 24th and 29th December 1880 (5th and 10th January 1881) sent 420 head of horned cattle to Bámi and Archemán. These were easily obtained as the Russians, except the poorest class, do not eat beef. On his first proceeding to buy sheep, the prices rose very much, and 1 *rouble* 80 *kopecks* was asked for a one-year old sheep, 3 *roubles* for a two-year old, and 4 *roubles* 50 *kopecks* for those about three years. ¶ These animals arrived in very poor condition on the 5th (17th) January, and were distributed along the line Bámi-Sámurskoye, part also being handed over to the advance force. ¶ In all Krishopenko bought cattle to the amount of 5,148 *roubles* in coin.

Besides this, Gromoff, to whom the supply of meat on the line from Bámi to Sámurskoye had been entrusted, as the Khivans refused to supply any more, had also sent a clerk to Bujnurd to buy cattle. As there are no large herds of cattle at Bujnurd or Kuchán, and it is therefore impossible to make large purchases all at once, and as cattle have to be bought in small numbers and shepherds hired to look after them and enclosures made for the animals, Krishopenko was ordered to hand over the cattle he had bought to Gromoff's representative, so as not to be troubled with all this work, and was to stop his own purchases.

As the road to Garmáb had been occupied by the Tekkes, the supply of the troops at Sámurskoye and before Gok-Tapa presented great difficulties.

* For details of contract, see Appendix 96.—*Author*.

† Proceedings of a Military Board, No. 18, dated 2nd (14th) December 1880.—*Author*.

‡ Final settling of accounts with Alexander Yegoroff Gromoff, merchant of the 1st Guild of Taskand.—*Author*.

§ Instructions to Diakoff, No. 817, dated 7th (19th) December 1880.—*Author*.

¶ Diary of Section II of the Staff of the Trans-Caspian Field Force, Part I, 1880, No. 27.—*Author*.

¶ Telegram from Vereshtshagin, dated 6th (18th) January 1881; Reports from the Commandant of the line Bámi-Sámurskoye, Nos. 17 and 40, dated 5th (17th) January 1881.—*Author*.

The troops at Sámurskoye and in No. 4 Hospital were without meat for three days running and the troops before Gok-Tapa had none for two days and received preserved meat instead. Bringing cattle into camp before Gok-Tapa was in some instances only managed not unfrequently at the cost of some bloodshed and columns had to be sent out to receive them.

The contract with Gromoff for the supply of meat to the 1st (13th) July 1881 except those stationed at Krásnovodsk and Micháelovsk, was only concluded on the 8th (20th) February.

In the end of January and in the beginning of February there were some complaints from the troops as to Gromoff's manner of carrying out his contract, and the commander of the 3rd Battalion Shirván Regiment reported that his battalion had been two days without hot food as they had no meat.*

According to the contract of the 8th (20th) February, Gromoff was bound to supply meat in actual weight at all points where there were more than 200 men. As he had evidently not carried out this part of his agreement which was very important for the proper supply of meat to the troops, a statement was drawn up at Gok-Tapa by the Field Controller showing that the cattle issued at an average weight to the troops weighed actually much less. This circumstance the Assistant Controller ascribed to the troops, not being acquainted with the actual terms of the contract, and he requested that the condition might be published in orders. This was done, and afterwards there were no complaints.

Generally speaking, however, Gromoff fulfilled his contract conscientiously.

As regards the supply of meat at Krásnovodsk and Micháelovsk from the 1st (13th) January 1881, the question of the Caucasus Intendant as to whom General Skobelev desired to be entrusted with the duty reached the General at Sámurskoye at a time when he had no leisure to spare for affairs in rear. He therefore telegraphed to Tiflis that, till the pacification of the country, he thought that the best way would be to leave it to the Intendance as heretofore.† The supply of meat at these points till the 1st (13th) July 1881 was therefore left in Michelson's hands who supplied meat, bought in the trade, at a price of 5 *roubles* 50 *kopecks* at both places.‡

To conclude the subject of the meat supply, we must add that its issue to the company of the Krásnovodsk local detachment at Kindarli and to the 5th *sotnia* of Lába Cossacks at the wells of Senek and to the troops passing through these points was undertaken by a Kirghiz contractor, who was paid at the rate of 8 *roubles* a *pod*. This price was very high, but nobody else would furnish meat any cheaper on account of the great loss of cattle in the winter of 1879-80, and the small quantity required.§

Generally speaking, the main features of the meat question from the day of General Skobelev's assuming command were his refusal of the offer of the Caucasus Intendance to maintain a permanent reserve of meat on the west coast of the Caspian. His object was to give more independence to the monopolist contractors in Trans-Caspia, and finally to destroy the understanding which existed between them and some Intendance officials. The result was that in July General Skobelev made a contract with Khivans for the supply of meat to the troops in Trans-Caspia to the 1st (13th) January 1881 at all points

* Report from Sivinis, No. 69, dated 4th (16th) February 1881.—*Author*.

† Telegram from General Skobelev, No. 8236, dated 9th (21st) December 1880.—*Author*.

‡ Telegram from the Circle Intendant, No. 146.—*Author*.

§ Telegram from General Petrusévitch, No. 3265, dated 4th (16th) August 1880.—*Author*.

except Krásnovodsk and Micháelovsk, at prices much lower than those previously paid by the Intendence.

Till November, the Khivans fulfilled their contract conscientiously, but towards the end they did so badly that, had we not captured 13,000 sheep and goats at Kalát and Yegván-Bátir-Kala, the position of the troops at Sámurskoye and in rear of it might have become very difficult.

At this time, when the fighting before Gok-Tapa was going on, a new and enterprising contractor, the merchant Gromoff, appeared. Although for a long time no contract was concluded with him, moral obligations existed between him and the Commander of the Expedition. All Gromoff's operations were founded on the captured cattle, which he bought from us at low prices and sold to us again at a profit. This arrangement was favourable for Government, as troops cannot look after captured cattle. It would have been impossible to base the supply of the troops on such a haphazard and even fictitious foundation. Therefore the Commander of the Expedition put off making a contract with Gromoff till the 8th (20th) February, when he was convinced that Gromoff was a man to be trusted.

In justice it must be mentioned that the part taken by the Intendence in the supply of the troops with meat was confined to drawing up and signing the contracts on bases which were worked out for them by the Commander of the Expedition.

The large supply of provisions of every kind permitted of a saving in many of the articles being made, not because the rations were excessive, but because of local conditions and in consequence of the life which the troops led. Going out early in the morning to drill, on reconnaissances, or to bring in firewood, by half companies, sections, and even in small detachments for one or two days, the troops could not take everything that was issued to them, and from such small detachments being constantly out, a considerable saving in the issue of certain articles resulted. The want of transport did not permit of the troops taking the supplies they had saved with them; and, as, moreover, according to military law, this is not allowed in time of war, the troops, not being able to return the non-expended articles into a depot, sold them for money to private persons at considerably lower rates than they had cost Government.

The whole success of the Akhál-Tekke expedition depended upon supplies being obtained and carried up to the various points. If, therefore, the troops had the right to return their savings to the supply-depots, the Government would be saved the price of the transport of such articles which exceeded their prime cost.

This measure was proposed by Chief Controller Cherevánski, and General Skobelev permitted the troops to return their surplus rations into the supply-depots, their prime cost, transport not included, being paid to them. It was also decided that no articles not received by the troops could be looked upon in the want of surplus, and that therefore no money could be allowed for such.* This order was confirmed by the Commander-in-Chief of the Army of the Caucasus.†

* Report from General Skobelev to the Commander-in-Chief, No. 7559, dated 14th (26th) November.—*Author*.

† Instructions from the Commander-in-Chief of the Army of the Caucasus to General Skobelev, No. 3226, of 27th December 1880 (8th January 1881). Information relating to the Operations of the officials of the Field Control, laid before the Temporary Commander of the Troops operating in Trans-Caspia, by the Chief-Controller, 1880, Nos. 26 and 56, of 1st (13th) and 12th (24th) July 1880; No. 135, of 20th August (1st September); No. 210 of 16th (28th) September; Nos. 393 and 405, of 7th (19th) and 18th (30th) December; of 1881, Nos. 8587, and 111, of 5th (17th) and 11th (23rd) February; Nos. 210 and 276, of 5th (17th) and 23rd March (4th April).—*Diary of the Staff of the Trans-Caspian Field Force, Nos. 10 and 42 of 1880.—Author.*

According to the proposals confirmed by the Commander-in-Chief of the Army of the Caucasus and followed by supplementary orders at various times, the men of the expeditionary force were each provided with, in addition to the usual articles of uniform, two linen blouses, a duck bag, instead of a knapsack, a pair of shoes, dark blue Chinese drawers, a cap with peak, cloth cover, and neck-flap, three pairs of linen and one pair of cloth foot-cloths, and, besides the mess-tin carried with the kit, they were provided with water-bottles covered with grey-cloth. The troops provided themselves with all these articles, the materials and money according to regulation being issued to them by the Intendence.

In addition, by special order, the 6 battalions of the 19th Division had also blouses and gaiters of sail-cloth; and afterwards the Intendence purchased materials to make 9,000 pairs of gaiters for the other troops.

For winter wear in 1879 and 1880 there were sent to Trans-Caspia 25,000 fur caps,* 10,100 knitted waistcoats, 1,600 pairs of warm boots, and 10,000 pairs of warm mittens of camel-hair cloth.

To supply the troops with boots for winter wear, on General Skobelev's special requisition, 17,130 pairs of ready-made boots were despatched. To meet unforeseen requirements, reserve stores of ready-made articles of uniform and boots and linen were formed at Chikishliar and Krásnovodsk, the numbers being calculated at 10 *per cent.* of the strength of the troops. In addition, 3,000 linen blouses and 3,000 kit-bags, to be used instead of knapsacks, were sent over.

At different times there were sent to Trans-Caspia 26,500 *tentes d'abri*, 621 officers and 1,924 soldiers' ordinary tents, and 179 hospital tents for the medical establishments. Among the tentage sent over in 1880 was a reserve of camp equipment for 3 battalions, 2 squadrons, and 3 batteries (80 officers and 380 soldiers' tents).† Afterwards, when the troops were being sent back to the west coast of the Caspian, this reserve was pitched at various points on the Micháelovsk line for the troops passing through. In addition, in 1879 the Intendence had acquired 400 second-hand Kálmak *kibitkas* at 309 roubles each, besides those which were provided by the authorities of the Field Force. In 1880, under arrangements made by General Skobelev, the merchant Miakinkoff had prepared 200 *kibitkas* and 1,200 *yulameikas* at Orenburg and delivered them at Astrakhan at prices of 200 roubles per *kibitka* and 100 roubles per *yulameika*. These began to arrive at Krásnovodsk in the end of August and the last came in the end of October.

Miakinkoff had prepared 200 *kibitkas* and 1,200 *yulameikas* at Orenburg and delivered them at Astrakhan at the rate of 200 roubles per *kibitka* and 100 roubles per *yulameika*. These began to arrive at Krásnovodsk in the end of August and the last came in the end of October.

The *kibitkas* prepared in 1879, after being repaired, were distributed between Chikishliar, Chát, and Duz-Olum and the various points on the Atrak line in advance of Duz-Olum and up to Bámi. In July and August 1880 there were sent to the latter point 154 *kibitkas*, and afterwards, in October, before the advance of the troops, when the garrisons on the Atrak line were reduced to a *minimum*, 46 more were received there. To receive the *kibitkas* and *yulameikas* furnished by Miakinkoff, in June 1880 Major Kusoff of the Navága Regiment was sent to Astrakhan.

* The fur cloaks were issued partly from the stores left in the Caucasus after the Turkish war and were partly sent from the interior provinces of the Empire, by order of the Central Intendence.—*Author.*

† Telegram from Bikhorst, No. 4221, dated 28th October (9th November) 1880.—*Author.*

Of the *yulameikas* furnished by Miakinkoff, 800 were sent up to Bámi and distributed to the troops of the advance force, the remaining *yulameikas* and all the *kibitkas* being left at the *étappen* stations on the Micháelovsk line and at Krásnovodsk.

To warm the *kibitkas* and *yulameikas* in winter, General Annenkoff, by order of the Commander of the Expedition, got 600 iron stoves, of those used during the Turkish war to heat railway carriages, sent to Trans-Caspia. Of this number 200 were sent up to Bámi and taken on with the advance force, and the rest were left in rear.

Felts had been prepared as bedding for the men. For General Skobelev's expedition there had been bought in May 1880, to supply the troops destined to occupy Bámi, 200 felts, each 11 feet 3 inches long and 3 feet 6 inches broad. Afterwards, 935 felts were obtained in Mangishlák and delivered at Krásnovodsk, of which some were issued to the troops as bedding, and about 500 remained in store.*

It was afterwards found necessary to order the following number of felts: 2,000 to repair the *kibitkas* bought in 1879, 2,500 for bedding for 12,000 men allowing 70' x 70' *per* man, 3,000 for shoes and lining for 6,000 camel saddles, and 2,000 for repairing the *kibitkas* and *yulameikas* furnished by Miakinkoff, or 9,500 in all.

To make these up, 500 were available, and 2,000 could be obtained in Mangishlák and 7,000 at Orenburg. In the beginning of August, General Petrúsevitch had made arrangements to buy as large a number of felts as possible at Fort Alexandrovsk,† and on the 12th (24th) September a telegram was sent to Colonel Ivánoff to Orenburg to buy and despatch to Astrakhán 20,000 *arshins* (46,666 feet) of good Kirghiz felt at the price mentioned by Ivánoff, *viz.*, 1 rouble 40 *kopecks* an *arshin*. These felts were to be delivered in Astrakhán by the 15th (27th) October, and this was the principal condition, as their delivery later would have rendered them useless.‡ Ivánoff bought and delivered all the required number of felts within the time indicated, at a cost of 28,000 *roubles*.§

These felts did not, however, supply the amount proposed to be issued to the advance force. The allowance had been fixed at 70" x 70" *per* man, while that sent up to Bámi only supplied 42" x 42". However, only the troops who were moved up the Micháelovsk line received proper felts, and the greater part were left at Bála-Ishem. Generally the felts, which soon became unfit for use, were insufficient in number, so much so that from the camp before Gok-Tapa our agents were sent into Persia to buy as large a number of felts as possible, and 720 were obtained in all at a cost of 1,925 *roubles*. These, however, only arrived as the troops were being sent home.

In considering separately each article of supply, we have already mentioned the action of the Field Control. As its *personnel* succeeded in being present everywhere, the Field Control was of great assistance to General Skobelev in watching over Intendance stores, nothing remaining unnoticed by it and improvements being everywhere suggested. Its operations began with the receiving boards established at the points where supplies were taken over, and continued during their delivery at Krásnovodsk and Chikishliár,

* Report from General Petrúsevitch, No. 3465, dated 11th (23rd) August 1880.—*Author*.

† Diary of the Staff, No. 27, page 105.—*Author*.

‡ Telegram from General Skobelev to Ivánoff, No. 5100, dated 12th (24th) September 1880.—*Author*.

§ Telegram from Ivánoff, dated 6th (18th) October 1880.—*Author*.

their transport to the advance supply-depots and their final delivery in them.

The action of the Field Control on the receiving boards, besides that already mentioned (*e.g.*, in the matter of oats), was shown in such a large number of cases that to mention them all would be impossible. We can only reproduce a few of the most characteristic.

The receipt of supplies by the Petrovsk, Baku, and Lankorán boards in no case gave ground for dissatisfaction, although these boards repeatedly rejected the articles supplied and required their replacement. Thus, for example, the Baku board rejected 277.2 cwt. of rice-groats which were brought up by the contractor all spotted and worm-eaten. By order of the Intendence, good rice was supplied instead of that rejected and delivered not at Baku, but at Astrakhán.

It was not so with the Astrakhán board, as its members were divided into two sides which could not agree,—on the one side were the majority of the representatives of the Field Control and of the Medical Department, and on the other side all the other members. This determined attitude of the Control and Medical Departments was a pledge of the success of the matter, and Cherevánski was not a little pleased with their opposition to the majority.

The receipt of flour and cakes at Astrakhán gave rise to some protests from the Controller and the doctor, who, having agreed together, roused opposition on the part of the other members of the board.

By agreement the contractor was bound to deliver cakes in sacks covered with matting and weighing not more than 4 *puds* (144.4 lb.),* while at first they were received in boxes weighing 6½ *puds* (234.65 lb.) each. If the contract condition had been observed, the cakes could have been loaded on camels without being repacked, but two boxes weighing 13 *puds* (469.3 lbs.) could not be carried in this way without being reduced from 8 to 10 *puds*. A report on this subject called forth the following telegram to the President of the Astrakhán Board: "The Temporary Commander of the troops has given no orders for such (boxes) to be received, and directs that these boxes be returned at the expense of those in fault, as if these things are repeated, it will be impossible to carry on the operations of the expedition."†

On the Caucasus Intendant enquiring into this matter, he expressed his displeasure at the receipt of the 6½-*pud* boxes, and the contractor had to repack the cakes at Krásnovodsk in sacks covered with matting.‡

On inspecting two sacks of cakes, Controller Tarkhoff remarked that they were mostly broken into small pieces and some of them appeared burnt and mouldy. According to the contractor who had supplied them, the cakes had been prepared not with pure wheat flour but half with semoule. According to the contract, the cakes were to be received in their sacks at Astrakhán, as each sack bore the mark of the official who had superintended the preparation of the cakes, and only those cakes were to be inspected in detail whose packing was in bad order or whose sacks did not bear marks. After his

* Report from the Chief Controller to the Commander of the Expedition, No. 170, dated 1st (13th) September 1880.—*Author*.

† Telegram of 8th (20th) September 1880, No. 1443. On this subject General Skobelev wrote to the Chief of the Staff of the Army of the Caucasus: "I do not like to make complaints, but again I am urged to do so by the Intendence. Yesterday a telegram was received from General Dumánski stating that 800 boxes of cakes, weighing each 6½ *puds*, had been despatched. We cannot carry stores thus packed, and have neither means nor time to repack them here."

Letter No. 6, dated Krásnovodsk, 10th (22nd) September 1880.—*Author*.

‡ Telegram from Dumánski, dated 13th (25th) September 1880, No. 418.—*Author*.

inspection Tarkhoff expressed his opinion that the Caucasus Circle Intendant should be asked whether he did not consider it advisable, before sending cakes to the east coast of the Caspian, to have a detailed inspection made of them. This was decided upon, and, after inspection, 40 packages were rejected as unfit.

The biscuits prepared under the superintendence of a member of the same Astrakhán board, Lieutenant-Colonel Deshtshinski, and which ought to have been made with first class flour were baked with flour of an inferior quality.

In pointing this out, Milutin, the Control member of this board, did not think fit to delay the receipt of the biscuits and cakes, as he considered that in time of war the date of delivery was of much greater importance than some variation from the proper quality of the article.

In November the receipt of supplies at Astrakhán was pushed on very hastily, as navigation would soon close, but the proceedings of the board still show that articles were subjected to a very careful inspection, as is seen from the separate opinions expressed by its members.

Such opinions were expressed in the following instances:—

- (1) 304 *vedros* (820·8 gallons) of vinegar brought for delivery appeared, on chemical examination by the surgeon, to contain too little acetic acid, instead of which there was a quantity of tartaric acid. The Surgeon and the Controller therefore expressed their opinion that this vinegar should not be taken over, but the board only thought it necessary to order that the barrels, which leaked, should be replaced by sound ones.
- (2) Among the sacks ordered to be prepared with hand-made cloth, the contractor presented 7,610 jute sacks. The board, though finding these sacks not according to pattern, thought that they were quite equal to the others in value, and therefore resolved to take them over. The Control member thought it his duty to point out that, in his opinion, jute sacks were not so strong as those made of hand-made cloths, and pointed to an article in the *Moscow Gazette* entitled "Our flaxen trade and jute sacks," in which a specialist testified that jute sacks would not stand more than two journeys, while those of Russian sacking would make six or eight.

If the Intendence made sacks of sacking, it was evident that it had good reason for preferring them to the cheaper article on account of their superior durability. "Therefore," wrote Cherevánski, "the opinion of the board can hardly be so infallible as to permit its receiving, instead of Russian sacking, stuff made in a factory, without asking any explanation of the opinion expressed by the Control member."

- (3) On account of want of brine for the cabbage for *kváss*, the contractor, Alafuzoff, had filled up some barrels with water. This circumstance was noticed by the board, which, however, considered that the addition of 4·5 lbs., weight of water per barrel could not spoil the cabbage, and accepted 300 of the barrels offered, which were filled up with water, rejecting only 160 barrels in which the cabbage had a watery taste. Some military members, the Controller, and the Surgeon considered the quantity of water added to be suspicious and even disadvantageous, because the cabbage was paid

for by the weight (1 *rouble* 59 *kopecks* a *pud*), and the additional weight of water was clearly a loss to Government. "The hurried nature of the delivery," Cherevánski reported to the Commander of the Expedition, "can hardly be taken as an excuse for the contractor, as he furnished at the same time 2,799 barrels, and these could be no very great hurry for 300 of these. Still they were taken over at considerable risk in the matter of their being in good order, and if they go bad the Government will not only suffer considerably by the loss of the supplies themselves, but still more by the loss of the money paid for their transport by sea."

- (4) The contractor Alafuzoff at different times claimed the re-examination of flour rejected by the board, and the president and some members consented to this, while others considered such proceedings unadvisable and protested. The flour was re-inspected; and, although 38.72 cwt. was accepted, the rest was again rejected, but such a decision of the board, as the Chief Controller pointed out to the Commander of the Expedition in his report for November 1880, was the result of a very energetic conflict of opinion between its members.

In addition to the above circumstances, the Control member thought it necessary on his part to make the following remarks on the deviations from their agreement permitted to the contractors by the board.

By the terms of contract, rye flour and groats were to be delivered at the supply-depots at the expense of the contractor and for each package 5 *kopecks* were deducted from the sums due to the contractor, as the unloading of the barges was carried out at Government expense, and, although the packages with provisions should have been so paid for, one of the Proceedings of the Board [No. 733, dated 20th September (2nd October)] passed over this in silence.

On the 14th (26th) November the board considered it necessary to make a declaration that the contractor Alafuzoff, had delivered all the supplies contracted for in writing by him within the periods specified, while their actual delivery, in consequence of their having to be repacked in $4\frac{1}{2}$ *pud* packages was really much delayed. By such a declaration, the contractor would have been almost completely absolved from any fines for breach of contract on account of delay in delivery. However, as the contractor justified his actions, the Control member pointed out that, besides not fulfilling his written obligations in the matter of punctual delivery,* the garlic had up to date not been delivered at all. In his explanation, given on the 19th November (1st December), the contractor said that the 156.8 cwt. of garlic referred to had been delivered by him at Baku. This was found to be false as no such quantity of garlic had been delivered there in October or in November.

In November, 12,266.4 bushels of flour were brought before the Astrakhán board for inspection, which, in the opinion of the Controller and the Surgeon, required most careful examination. Before this examination could be carried out, the Intendance member had made arrangements for the flour to be loaded on the barges, one of which had already gone out to sea. The loading of another barge had begun when the board arrived, but the latter succeeded in making an analysis, upon which it appeared that some of the sacks contained barley and pea flour. This caused its unanimous rejection. As for the flour

* For example, the laurel leaves and vinegar were promised for the 30th September (12th October) and were only received on the 16th (28th) and 19th (31st) October.—*Author*.

which was sent off without being inspected, the Chief Controller made arrangements for the officials of the Field Control to examine it before receiving it into the magazines, and actually, when it arrived at Krásnovodsk, 283 sacks of rye flour were found to be mixed with barley. This affair made the Chief Controller request the Intendant of the Force to determine, in communication with experts and the Control, whether such flour could be issued without danger to the health of the troops and how much the value of the mixture was below that of pure flour. The Chief Controller thought it just that the difference of price should be imposed as a fine of the member of the commission who had received the flour from the contractor and shipped it off.

The opposition of the Controller, strengthened in an even more decided form by the representations of Surgeon Rimsh, had this good result that the contractors began to supply articles of better quality than at first; such a case as the bringing up of 5,440 cwt. of potatoes quite unfit for food, which were unanimously rejected by the board, was not repeated. "The coincidence of views of the Controller and the Surgeon," reported Cherevánski to the Imperial Controller, "caused rejection to be made and undoubtedly caused the contractor to see that they could no longer behave towards government as in the patriarchal times of peace."^{*}

On his part the Commander of the Expedition wrote to Cherevánski:—"I quite agree with your opinion in this matter. The good conduct of all the members of the Control in Trans-Caspia makes me perfectly understand the report you considered it necessary to make on this occasion. The integrity of the Control should be officially recognized; both justice and the interest of the State demand this. I am writing in this sense to the Chief of the Staff of the Circle."[†]

As the Chief Controller was convinced that all supplies had not been carefully inspected by the receiving board before being shipped to the east coast of the Caspian (*e. g.*, 45·76 cwt. lime-juice, delivered from the Kherson medical store, and some other preserves were not inspected), he considered it far from useless to have them inspected again at Chikishliár and Krásnovodsk, before sending them up to the front. The Commander of the Expedition agreed with him and appointed a special board to inspect these supplies.

In the same way, the supplies and stores landed at Chikishliár and Krásnovodsk were inspected after the receiving boards had been dissolved.

On the inspection of the garlic delivered from the Baku supply-depot in January 1881, it was found to be quite unfit for use and an expert pointed out that it could not have got into this condition during its transport across the Caspian. The Chief Controller applied to the Intendant of the Force to have the supply of garlic from Baku stopped and to take measures to have the loss from that already furnished refunded to Government.

Besides this, as experience had shown that such vegetable products as garlic, onions, and radishes sent from the west coast were either already spoiled or soon turned bad in Trans-Caspia, the Chief Controller pointed out to the Temporary Commander of the Troops that it was necessary, once and for

^{*} Letter from Cherevánski to the Imperial Controller, No. 11, dated Astrakhán, 30th June (12th July) 1880.—*Author*.

[†] Letter No. 2982, dated 24th March (5th April) 1881.—*Author*.

all, to dispense with the supply of these articles from the west coast. They hardly ever reached the troops and got spoiled soon after their issue from the magazines. Thus, *e.g.*, on the 15th (27th) February 1881 there were 186·24 cwt. of radishes in the Micháelovsk supply-depot and by the 1st (13th) March only 64 cwt. had been issued; there were 1,646·4 cwt. of potatoes and 21·76 cwt. had been issued.

The Commander of the Expedition quite agreed with this opinion; and no vegetables were contracted for after the 1st (13th) July 1881, the troops being ordered to cultivate kitchen gardens.

"In considering the action of the Control on the west coast," wrote General Skobelev, "one cannot but be astonished by the activity, experience, and practical knowledge of its members. Once more I have had an opportunity of convincing myself of the vast importance of a Control being established with an army in the field and of the devotion to the service which has inspired the officials serving in this important branch of the Imperial Administration. Such has been the impression produced on all good men by the Control in the past campaign. Regarding the differences of opinion between the representatives of the Control and the other members of the receiving boards, I have given orders through the Chief Controller that in important cases they are to bring their opinions as quickly as possible to my notice, and are as a rule to hold fast by their own opinion."

In the actual inspection of the supply-depots the Control discovered the following facts.

In the Chat depot it appeared that the superintendent sold supplies as if they had been his own property, and enquiries made confirmed this. In consequence the superintendent was brought before a Court Martial.

A Field Controller on inspecting the Yágli-Olum depot in August 1880 found that, although on the books of the depot 40·5 gallons of vinegar were borne, there was no vinegar in the depot, but a sour red wine instead, with none of the qualities of vinegar, and which could not be issued to the troops.

On further inspection of the depots and magazines on the Chikishliár-Bámi line the same was everywhere apparent, and the presence of this bad wine in the depot was considered by the Chief Controller to be the fault of the Intendance of the force which had concluded contracts for the supply of "weak" vinegar, thus without fixing a normal standard. In consequence of this, the Commander of the Expedition had to take measures to have vinegar of the right sort supplied.

On the inspection of Krásnovodsk supply-depot at the same time, it was found that the wheat flour of a former delivery which had been brought from the Chikishliár depot contained worms and was caked and mouldy. A military board was in consequence assembled to take cognizance of this fact, and it discovered bran in 1,019 packages of wheat flour, which should not have been mixed with it, to the amount of 3 pounds *per pud* ($\frac{3}{40}$). It is, therefore, recommended that this wheat flour, and also the 384 packages of rye flour in which worms had been found, should be issued to the troops to save further loss, 2 pounds *per pud* being added to the rye and 3 pounds to the wheat flour to make up for the mixtures in them, the rye flour being issued half and half with fresh flour.

In agreeing with the conclusions of the Board, the Commander of the Expedition ordered strict enquiry to be made as to why flour of bad quality

had been delivered from the Chikishliár depot.* The presence of the bran in the 1,019 packages of wheat flour called forth the following expression of opinion from the Temporary Commander of the Troops :—

“ From the day I took command of the Namanghán district, I have constantly met with cases of intentional spoiling of flour. The difficulty of controlling the flour supplied in peace time even compelled the Turkistán authorities, as an experiment, to try the effect of supplying the troops of the Andiján garrison not with flour, but with grain in corresponding quantity; and mills were hired in which the flour was ground by the troops interested. This measure, in that place and under the peculiar conditions of service in Turkistán, ought to have given good results; but unfortunately my departure in 1877 to join the army of operations nipped the experiment in the bud.

“ Afterwards, when in command of the Minsk Army Corps, I had opportunity of convincing myself of the prevalence of the evil practices of other bodies being mixed in the flour. This came out especially at the inspection of the supply-depots at Minsk, Borisoff, Bobruisk, and Nesvij. I may say with certainty that to inspect the flour received in supply-depots with all the good will in the world and even with the aid of Rakovitch’s apparatus is very difficult even in peace time. In hurried deliveries in time of war it is impossible to prevent such malpractices on the part of contractors. In peace time it is very desirable to use Umfried’s apparatus, which permits of bread being baked with grain, and this is especially important at strategic points to which at present large quantities of biscuit and flour, which are easily spoiled, have to be brought.”

On the Field Control continuing to inspect the Kránsvodsk supply-depot, the following facts were brought to light.

Seven stacks of compressed hay were left uncovered, and, therefore, during the rains, the hay became heated and mouldy. In consequence, the Field Control compelled the Superintendent of the supply-depot to take preservative measures, which were carried out.

The Field Controller considered that, when 57,000 bushels of oats were sent from Kránsvodsk to Chikishliár, only properly covered packages should be sent off, so as to avoid waste. By order, this was entrusted to the Superintendent of the supply-depot, in whose charge there were numerous packages torn by hooks and generally of bad quality, which had been received by the Astrakhán Board in such packages, in spite of the numerous protests of the Controller.

At the request of the Field Controller, a military board was assembled at Kránsvodsk to inspect the spirits delivered from Astrakhán and marked with the seal of the president of the board. This board, which consisted of the Field Controller, two experts, the Superintendent of the supply-depot, and three officers, found that, *1stly* in 115 barrels, 256·5 gallons were deficient, and, *2ndly*, that at 8° R the spirit had only 75° of strength which corresponded to 76·7° of strength at normal temperature, while the contract was for it to have 80° of strength. The experts testified that such a loss of strength could not proceed from normal causes. “ Therefore,” as the Chief Controller pointed out to the Commander of the Expedition, “ it only can be supposed that these spirits were delivered by the contractor below contract strength.” The Chief Controller also caused the experts to examine the spirits in the depots at Micháelovsk and Mulla-Kári, and then requested the Caucasus Intendant to demand an explanation from the Astrakhán board.

* General Order No. 357, dated 8th (20th) October 1880.—*Author.*

The Controller also found that the 2 *desyátina* weights of the Krásnovodsk supply-depôts were false and showed a weight of 1 *pud* 4 pounds instead of 1 *pud*, thus diminishing the quantity of supplies issued to the troops. The weights were reported unserviceable by the Controller.

On the inspection of the Chikishliár depot among other things the following was found out.

In the store-house for materials, there were deficient:—shirting, 4,298 feet; Flemish linen, 385 feet; uniforms, 42; trousers, 26; hoods, 18; boot-legs, 19 pairs; uppers of boots, 225 pairs; soles, 268½ pairs; and spare soles 216½ pairs. In this store there was some suspicion of these articles having been sold to private parties, as had also been suspected with regard to supplies.

The Temporary Commander of the Troops, on receiving a report of this, ordered the necessary measures to be taken, and, on searching the house of the conductor in charge, 228·2 cwt. of rice-groats were found. The matter was brought before a Court-Martial.*

After inspection by the Field Controller and a Military board, 646·4 cwt. of rice-groats furnished by Lieutenant-Colonel Shtsherbina, former Superintendent of the Chikishliár supply-depot, were found to be caked, of green colour, and rotten, whilst the gruel made from them was bitter. In consequence, the groats were not taken over and were at once turned out of the depot to prevent their contaminating the other articles.

The hay furnished by the contractor Gromoff to the Chikishliár supply-depôt was, on inspection by the Field Controller and a military board, found to be damp and mixed with sand. The sorting committee appointed found that of 10,240 cwt. of hay contracted for, only 960 cwt. were fit for use, and that 5,936·64 cwt. had not been delivered. Notwithstanding, the Superintendent of the depot had given a receipt to the contractor as if he had delivered the full quantity of good hay. The sorting committee assessed the loss to Government caused by the Superintendent of the depot at—for 18,552 *puds* (5,936·64 cwt.) of hay not delivered, at 40 *kopecks* a *pud*, 7,606 *roubles* 44 *kopecks*; for bad hay received, 9,637 *puds* (3,083·84 cwt.); in all 3,951 *roubles*; cost of extra hay to improve that of bad quality, 479 *roubles*; and working pay of the soldiers employed to sort the hay, 863 *roubles*; in all 12,901 *roubles*.

The matter was brought before a Court-Martial, and in consideration of the loss to Government, the security given by the contractor was confiscated, and some payments due to him withheld, the total amounting to 12,131 *roubles*, thus reducing the loss to Government to 770 *roubles*.

Regarding the deficiencies of hay in the Chikishliár supply-depot, the following fact may not be without interest. The Field Controller, on inspecting the accounts of the depot, found an item of 489·6 cwt. of hay issued on the 22nd January (3rd February). He was on that day in the depot and saw no large issue of hay, and on enquiry it appeared that a cheque for 489·6 cwt. of hay had been given to the conductor by the superintendent, but that instead of this quantity only 16·16 cwt. had been issued and no further issue made. On the demand of the Controller, the non-expended 473·44 cwt. of hay were re-entered in the books as a receipt.

* The former superintendents of the Chikishliár supply-depot, Lieutenant-Colonel Shtsherbina and Lieutenant Triroff, had been brought before a Court-Martial by order of the Commander of the Expedition for malpractices committed during their administration.—Report from the Caucasus Intendant, to the War Minister, No. 6594, dated 27th February (11th March) 1882.—*Author*.

On inspecting the same depot in February 1881, the Field Controller found a surplus over the amount shown in the books of 2291·4 bushels of oats, 644·1 bushels of rye flour, 49·6 cwt. salt, 37·76 cwt. of rice-groats, and 23·68 cwt. of fruit acids. All these articles were entered by the Control as government property. The deficiencies were insignificant. The Controller, however, remarked that the cabbage was far from being in proper order. The brine leaking out from its barrels was not replaced in time or not replaced at all. Thus, for example, in the period (8 days) during which the inspection went on brine was put into the barrels, 87 in number, and containing about 960 cwt. of cabbage, to the extent of 27 to 40·5 gallons each, and into one barrel as much as 67·5 gallons. By reason of the want of brine the cabbage had got covered with mould and was becoming perfectly unfit for use. There were also in the magazine 85,940 rations of horse-biscuit, which had cost Government 42,970 *roubles*. As they had begun to be mouldy, the Chief Controller asked the Temporary Commander of the Troops whether it would not be advisable to issue these biscuits as quickly as possible, even though they had to be sent by the Micháelovsk line, where the supply of hay was attended with some difficulty, and this was accordingly done.

In the supply depots between Chikishliár and Duz-Olum, no important deficiencies of stores against those shown in the accounts were discovered. The largest deficiency was one of 8·32 cwt. of sugar in the Chát depot, but in it was also found a good deal of surplus on other supplies. In the Duz-Olum depot also some considerable deficiencies were discovered by the Control.

In general, the field Controllers observed in their inspections of the depots that the regulations by which officials of the military administration should be guided in their periodical and non-periodical issues were not observed. As the neglect of these rules might have unfavourable results for Government, the Chief Controllers requested the Temporary Commander of the Troops to give orders for the regulations to be punctually complied with, which was done.

On his inspection of the Bámi supply-depot in February 1881, the Chief Controller found 48,878 rations of preserved meat, pea-soup and porridge, hermetically packed in metal boxes. Notwithstanding the short time which had elapsed since they were received from the manufacturers, the larvæ of insects were found in them and these had in part generated. The Chief Controller, therefore, requested orders to be given for these nations to be issued as quickly as possible. "Generally, however," wrote Cherevánski to the Commander of the Expedition, "we must remember that our troops do not like preserved meats, and they would sooner have nothing but biscuit than eat such rations. This was also remarked during the Turkish war, when Government suffered great losses in the matter of preserved meats, and therefore it will not be useless to ask the War Minister whether, in view of the experience gained, it would not be better to give up the use of preserved meat in war."

It has been remarked that spirits were issued to the troops 77·72° strong, while, according to Army Circular No. 116, 1873, sprits should be issued to troops with a strength of 75°. To prevent possible claims for deficiencies, the Chief Controller requested the Temporary Commander of the Troops to communicate this to the force.*

* Circular No. 51, dated 20th March (1st April) 1885.—*Author*.

Here it must be remarked that the Superintendent of the Bámi depot asked to have a considerable quantity of *ghi*, which had leaked out of the barrels, struck off his books. A Board, assembled to report upon this leakage, found, amongst other things, that the barrels which had got soaked with *ghi* had increased in weight by 10 to 30 pounds. This conclusion was laid before the Chief Controller, who could not agree with it until after a new and stricter inspection. Putting the correctness of the conclusions of the Board for the moment aside, the Controller was guided by the following data. The Field Controller had inspected 1,015 barrels of *ghi* in the Krásnovodsk depot and had obtained data as follows :—

- (a) the mean weight of *ghi* in each barrel was 5 *puds* 5 pounds ;
- (b) the mean loss on each barrel was 1 *pud* 14 pounds ;
- (c) the weight of each barrel after being soaked through with *ghi*, only exceeded the ordinary (*tare*) weight by 6 pounds ;
- (d) leakage did not take place through the wood, but through the joints ;*
- (e) in consequence of this the unavoidable loss on each barrel could only be placed at 6 pounds on every 5 *puds* 5 pounds, and the remaining waste was traceable to circumstances which could have been prevented by more careful fastening of the hoops and more care generally of the barrels.

As the precise determination of the degree of unavoidable loss of *ghi* was of great importance to Government, the Chief Controller ordered the members of the Field Control to make new experiments, so as to verify the conclusions of the Bámi board.† After this, all the data could be put together, so as to form an idea of the percentage of losses from leakage.

After inspecting the supply-depots on the Chikishliár-Bámi line in December 1880, the Chief Controller thought it necessary to change the conditions on which hay was obtained by contract. On this line hay was prepared of two sorts, common and reed hay, the latter being allowed to the extent of $\frac{1}{10}$ th of the whole supply. Contractors asked the same prices always for both sorts of hay, and this led to Government being cheated, as the contractors always asked for permission to supply reed hay in a greater quantity than that stipulated for, and usually did so when the period of the contract was about to expire, as then the need of hay was so great that it had to be got at any cost. Such permission had therefore to be granted although reed hay cost less to gather and deliver at the depot, and was also less nourishing than ordinary hay. The Chief Controller therefore recommended that separate prices should be fixed for ordinary and reed hay, and General Skobeleff consented to this.

In August 1880, the Field Control made a close inspection of the Chikishliár and Krásnovodsk hospitals.

In the Chikishliár hospital it was remarked that white bread was issued much below the fixed contract conditions, that the hospital buildings required repair, that large crevices were found in the floors, that the stores had no dampers to keep in the heat, &c.

Having been present when some sick men were embarked at Chikishliár, the Field Controller recognized the necessity of providing the sick with warm clothing for the sea passage by night. The hospital had no stores for this

* As an experiment, the barrels were split open and their interior was found to be dry.—*Author*.

† The Bámi board had no Control official attached to it, as the latter was absent from Bámi.—*Author*.

purpose, but on this being brought to the notice of Countess Milutin, the Superintendent of the Red Cross Society, the sick were at once provided with warm clothing, bedding, and other articles which were not supplied by Government from the stores of the Society.

In reporting on the method of removing the sick from Chikishliár to Petrovsk, the Chief Controller laid special stress on the fact that the Chikishliár hospital might be overcrowded with sick and still there might be no way of increasing its accommodation. If the number of sick were increased and it were found impossible to remove them, as might easily happen during a storm in the road-stead, the hospital would certainly not have enough beds. On this being brought to his notice, General Skobeleff at once made arrangements for 100 extra beds being supplied.

On a second inspection of these hospitals in January 1881, the Controller found that the repairs reported previously by him as necessary had not been carried out. The hospital committee pointed out that they had several times, both officially and privately, requested the engineer officer to have the repairs made, but had always received the same answer that the materials were expected from Baku. The Chief Controller, on considering this matter, could not but call attention to the fact that the repairs indicated by him only required a few boards and sheets of tin, which could always have been obtained at Chikishliár. By order of the Commander of the Expedition, these repairs were at once carried out.

On his inspection of the Krásnevodsk hospital, the Feld Controller found that the necessities delivered from the Tiflis store were in a very unsatisfactory state. For example, the linen was so badly washed that traces of excrement and of poultices still remained on it, 46 soldiers' mattresses, 200 under sheets, 360 shirts, and 280 pairs of drawers were quite rotten, and many of the cloth articles were moth-eaten. On this being reported officially to the Caucasus Intendancy, the linen was changed and the unserviceable articles were sold by public auction. In his report to the Commander of the Expedition, the Chief Controller finished by saying:—"It only remains for the Control to calculate the losses on this operation."

In the inspection of No. 2, temporary field hospital at Bámi, in addition to the faults which might be attributed to the exceptional situation of this hospital, the Field Controller brought specially to notice that the linen articles provided by the Intendancy, such as bed linen, drawers, pillow cases, shirts, and towels, were narrower and shorter than those prescribed by regulation by $1\frac{1}{2}$, $2\frac{1}{2}$, and $3\frac{1}{2}$ inches, and sent notice of this to the Caucasus Intendant.

According to the regulations for the Field Control, all departments were bound to bring to its notice all contracts proposed to be made by them, so that the conditions might first be submitted to the Field Controller.

The No. 3 temporary field hospital had made a contract for the cleaning out of its latrines without informing the Control first. The lowest price offered was 12,850 *roubles*. Hearing of this contract, the Field Controller protested against its conditions and the manner in which it had been concluded only three days' notice having been given. This protest was handed in on the 17th (29th) November, and on the 19th November (1st December) a board pronounced the contract null and void. The result was that a contractor came forward offering to undertake the operation for 3,000 *roubles* with other conditions favorable to Government.

The officials of the Field Control took part in all military boards assembled to inspect and report upon Government property. Thus, all the camels bought by Government were inspected by special boards, in which the Control officials took part, and these boards also inspected the saddles and equipment for pack transport supplied. Of the equipment for pack transport all the 1,200 *kajáwaks* inspected on the 10th (22nd) July at Krásnovodsk were pronounced unfit for the purposes they had been purchased for, as their arches were too thin and the wicker work of vine twigs was not strong enough. The *kajáwaks* inspected at Chikishliar were also pronounced unserviceable for similar reasons.* A special board assembled for this purpose, in the presence of the Chief Controller, considered that these *kajáwaks* should be replaced by frames such as are used all over Central Asia, for pack transport. This board, also after rejecting unanimously all the camel saddles supplied, proposed a type which was approved of by the camel drivers. On the organisation of the transport service with camels brought by Government, it became necessary to draw up regulations for the accounts of receipt and loss of camels and stores such as saddles, rugs, girths, frames, &c. The regulations drawn up by the Chief Controller for this purpose and also a form for accounts, were approved of by a committee which worked them out.

The Chief Controller also paid attention to the regulations for the payment of money for the camels of the improved Turkumán transport, and the sums due to them after each journey were issued in the presence of a Control official. On the 10th (22nd) August, however, when 74,910 *roubles* were issued to the *caravan-báshis*, the camel-owners did not appear and therefore the Chief Controller expressed to General Skobelev his opinion that it was necessary to warn the Elders of the tribes to which the camel-owners belonged that the Russian Government would pay the prescribed sums in full. This was considered advisable, and the road commandant of the Atrak line was ordered to take the necessary steps.

On account of the very hard work and want of growing forage, the loss of camels in the convoys in December 1880 assumed huge dimensions. Thus, for example, the 3rd Orenburg Convoy, which consisted, in October, of 1,304 camels, had only 419 when inspected by the Field Controller on the 19th (31st) December. Similar and even greater losses were experienced by all the other convoys. The Chief Controller therefore suggested to the Commander of the Expedition that the superfluous *caravan-báshis* and camel-drivers should be discharged, and this measure was carried out by General Skobelev.

By section 6, paragraph 12, of the instructions for the Control of the Trans-Caspian Field Force, a preliminary verification of money issues from the field treasure chests might be carried out by the Chief Controller, if it was considered necessary by the Commander of the Expedition.

When inspecting the books of the field treasure chests in Trans-Caspia, the Chief Controller came to the conclusion, in July 1880, that a Preliminary Control of money issues would be both advisable and useful.

The departments which had money at their disposal had quite wrong views on the subject of advances. In the greater number of cases, as the

* The *kajáwaks* had also been inspected by the Lankorán receiving board. Of 12,484 which had been brought before the Board, only 1,706 were received, and the remaining 10,778 were condemned as quite unserviceable and were sold for firewood. They were too slight and had knots and splits in different directions, and in addition the arches were united by crossbars placed in hole in the sidebars and not by wicker-work.—*Author*.

Chief Controller saw from the documents of the field treasure chests, these departments issued advances of the whole sum required to perform a certain operation, when this operation took place at the same station as the treasure chest. Accounts for these advances hardly ever reached the treasury. Instead of advances in money, regular assignments were made, and sometimes for ten or twenty thousand *roubles*, so that the treasury could not judge, from the documents sent in, what sum was to be paid for the operation or by what means it was to be carried out.

Having drawn up a code of regulations for the Preliminary Control, on the 19th (31st) July, the Chief Controller laid it before the Commander of the Expedition. After a few changes had been made in several paragraphs, these regulations were confirmed by General Skobelev, and published in General Orders for guidance.*

In laying the project before him, Cherevánski wrote to the Commander of the Expedition: "This experiment of a Preliminary Control of all money issues in war is the first of its kind which has been made in our system of Government accounts. Therefore if Your Excellency is pleased to approve of the project laid before you, it may not be without results in the history of our financial regulations."

The "Regulations for the preliminary control of money issues by departments and officials of the Field Treasury in Trans-Caspia" may be summed up under two main heads. They prevented expenditure which was in evident non-conformity with the regulations established by the Temporary Commander of the Troops, and they enabled unauthorised demands to be prevented in time, without waiting for the Control which would only revise accounts on the termination of military operations, when the prevention of unauthorised issues was an impossibility. The fact of Government interests being violated should be followed by instant enquiry with a view to preventing similar infractions in future, and only in this manner could issues of money keep a check on their expenditure. "At all events this is a powerful preventative against all robbery," was General Skobelev's remarks on Cherevánski's project.

How great was the prejudice against the introduction of a preliminary control may be judged from the words of such an authority as General Petrúsevitch, who wrote: "The proposal to establish a preliminary control is evidently intended to enable the Control to put a break on the whole business at any time. Not to speak of its being able to demand every document sent in already, or to be sent in, if any particular transaction displeases it, it can simply wipe out the whole affair. The rule that no assignment of money should be kept back more than two hours after its receipt seems to be without meaning. Who is to observe this rule? Is it the Controller who does not approve of the expenditure in question? I am convinced that such a code will delay everything. The issue of money in military expeditions goes out of the sphere of preliminary controls. Expenses arise suddenly, and the non-issue of money, if the Controller does not know or does not approve, may cruelly hurt the conduct of affairs. The only person here who can authorise expenditure is the Officer Commanding the Troops. He is not, however, tied down to one place, and consequently the officials in charge of branches of the administration have often to make assignments and issue money on their own responsibility. All this is put a stop to by the rules made

* General Order No. 282, dated 11th (23rd) September 1880; Appendix 97—see Rules for the Preliminary Verification of Money-issues from the Treasure Chests of the Trans-Caspian Field Force to Administering Departments and persons.—*Author*.

by the Control. I therefore think that these changes in the Control arrangements for the troops operating in Trans-Caspia should not be permitted; and with regard to the preliminary control, only section 6 of those rules should be allowed to hold good, which permits of this Control being established when the Commander of the forces deems it necessary, and not always and in all cases.

"Nothing like what the Chief Controller has proposed has ever been put in practice before, and is it possible that what it has been found impossible to establish in other places will be found advantageous for us in such a country as this, where individual initiative, if not encouraged, will tie the hands of our head, *viz.*, the Commander of the Expedition? Dishonest men must be at once brought to justice, but it is impossible to tie our hands in the matter of expenditure."*

This was the first time that a preliminary control had been established in Russia, and the thing was new to everybody. Notwithstanding the modest limits of the rules proposed by Cherevanski, the Chief Controller foresaw that some authorities would see in them a limiting of their rights, and would then complain of the evil effects of tying their hands in time of war. He saw that men, who had been accustomed to consider war time as a period in which, so to speak, the ordinary laws of the Empire were slackened, would be more or less displeased. He, therefore, resolved to manage affairs so as to diminish this discontent and reduce it to a matter of simple grumbling. For the good of the service he thought it necessary to bring in the preliminary control more or less gradually at first.† With this view, he gave instructions to his subordinate officials in which, among other things, it was stated: "You will direct all your efforts to calm that feeling of irritation, which will undoubtedly arise in the minds of some authorities, by preliminary boards or, in extreme cases, by abstaining from anything which might hurt their feelings. At first you must weigh with special care the results of recognising assignments as payable, or conditionally payable, and before coming to a decision, you must consider carefully the rules laid down for your guidance and guard the interests of Government. I shall not trouble you with examples, as practice will supply you with a large number of them; but as a guiding idea let me suggest to you that to satisfy the troops is your first duty and then you may think of noting assignments as payable if there is an absence of formality about them. You must know that a large number of perfectly irregular issues of money have been made in consequence of non-comprehension of regulations or upon, some order or another, and in such cases I request you not to stop payment, but to report to me, so that I may lay the matter before the Commander of the Expedition. As a rule do not entertain the idea that this preliminary control is necessary to strengthen our hands, and is only a means of giving our officials power and importance. This control will be applied, and you, who have received beforehand from me these hints as to the line the preliminary control has to take, must not bring it into disfavour by insisting too strongly on the rights conferred upon you.‡"

This control was brought into force in Krásnovodsk on the 16th (28th) October and with the advance force on the 30th October (11th

* Notes dated 4th (16th) August 1880, in the Diary of the Staff of the Trans-Caspian Field Force, No. 49 of 1880.—*Author.*

† Report from Cherevanski to the Imperial Controller, dated 23rd September (5th October) 1880, No. 216.—*Author.*

‡ Secret Circular from the Chief Controller to the Control Officials.—*Author.*

November), and at Chikishliár in December on the arrival of a third Controller.

The following facts were brought to light during the operations of the preliminary control.

Some corps demanded forage money instead of forage in kind for pack animals which did not actually exist, these demands being based on sections 675 and 682, Book IV, Chapter 4, of the Code of Military Law, 1859, by which commanding officers had the right of selling, changing, or using, as their own riding horses, transport horses, without giving accounts of the sums received, on condition that any money gained in this way should be placed to the credit of regimental funds, if the full number of horses was not kept up. On this ground, one corps asked for forage money instead of forage in kind for 69 Government transport horses which it ought to have had on its strength. According to the information of the Field Controller, which was confirmed by the Commander of the Corps, it appeared that, although the latter had actually received 50 *roubles* in hand to buy 69 horses, he had only bought 2.

On examining this matter, the Chief Controller found that in war forage can only be issued in kind, and that for the actual, and not for the regulation, number of horses. He, therefore, demanded the return of all the money to Government, and this was done.

On inspecting the accounts of money paid for loading and unloading articles in the harbours of Krásnovodsk and Micháelovsk and at the island of Rau, the Controller found that double payment had been made for loading and unloading some articles, *i.e.*, they had been paid for separately at each place. Thus there were noted as having been paid both at Krásnovodsk and Micháelovsk from the same ships: *ex Tavríz*, 360 rails; *Lion of Debour*, 250 rails; *Armenian*, 3 trucks 477 rails 6 sleepers; *Khudádád*, 6 trucks and 6 sleepers; *Mirza-Ábád*, 400 pieces of tubing 100 poles 2,366 double, planks, 154 treble planks, &c.

To avoid misunderstandings, the Field Controller, before further action, consulted with the Commander of the Troops at Krásnovodsk, Colonel Makaroff, A. D. C., who not only confirmed the conclusions of the Controller, but, on inspecting the books, stated that the No. 4 temporary field hospital had been unloaded by the men of the hospital detachment under his command, while in the books it was stated that this operation had been performed by a contractor.

In consequence of this, the Field Controller, on revising the assignments of 39,091 *roubles* to the contractor, considered it necessary to retain 10,000 *roubles* for Government till accounts had been settled up with the contractor, the remainder being issued to him, so that he might pay his workmen and prevent them from refusing to work.

A special board was appointed, by order of the Commander of the Expedition, to examine the accounts for loading and unloading at these harbours.

Not to overburden this narrative with facts concerning the operations of the preliminary control, there has been compiled and placed in a special Appendix (No. 98) a list of the assignments noted as unpaid or conditionally paid in November 1880.

As a general characteristic of the unauthorised claims discovered by the preliminary control, we may give the following examples—(1) claims for carriage on ordinary and not special journeys on duty from persons who received

forage money for draught and riding horses ; (2) claims for forage money at local prices higher than those at the places where the claimants were stationed ; (3) claims for forage money from persons holding acting appointments at the same rate as if they actually held these appointments ; (4) claims from some commanders of non-detached battalions for forage and ration allowance at the same rates as those of regiments and detached battalions ; (5) claims from officials in the Trans-Caspian Military District for field ration and forage allowance on an increased scale, as they were not borne on the establishment of the force, &c., &c.

As a rule no official complaints were made by the persons from whom money deductions had been made by the Field Controllers.

In addition to the verification of assignments before payment, the Commander of the Expedition thought it on several occasions advantageous, before taking his own decisions, to lay certain matters before the Chief Controller. We shall give some examples of these :—

(1) Intendant Kalnitski permitted Lieutenant Trirogoft to furnish 900 camels for the transport of artillery stores from Chikishliar to Duz-Olum at 10 *roubles* 70 *kopecks* a camel. Having finished this operation, Trirogoft demanded the repayment of 2,784 *roubles* of his own money spent by him. On enquiring into this matter, the Chief Controller discovered an incomprehensible condition in Kalnitski's arrangements. In fixing the price per camel he had not laid down the weight of stores which each was to carry. Lieutenant Trirogoft had taken advantage of this and had put upon each animal loads considerably below the normal, beginning with 6 *puds*. With normal loads of 10 *puds* the Chief Controller considered that instead of 2,784 *roubles*, Trirogoft should only be paid 751 *roubles*.

(2) The Intendance had paid 2 *roubles per camel per diem* to the contractor Terogánoff, in all 11,370 *roubles*, and had then requested the Temporary Commander of the Troops to confirm this expenditure. The Chief Controller found that this arrangement of the Intendance could not be confirmed, as an operation of this magnitude exceeded their rights and the prices were excessively high. At the time when this operation took place the usual price for a camel was 1 *rouble per diem*, which, in the case under consideration, would give only 5,685 *roubles*.

(3) Under the pressure of urgent circumstances, *araba* drivers had been hired at Chikishliar without any conditions being distinctly laid down, and when the transport was finished, they complained that they had not received their full pay from Government. The road commandant proposed to satisfy them by letting them off payment for forage received by them from Government to the amount of 1,300 *roubles*. According to an opinion expressed by the Chief Controller, the complaints of the *araba* drivers were gone into by a special board on which a Control official also sat, and which, following the course indicated by the Chief Controller, found that the *araba* drivers had received not 1,300, but more than 4,300 *roubles* worth of Government forage.

To avoid such misunderstandings, so unfavourable to Government, the Chief Controller, recognising that the hired *araba* drivers could not carry out the transport if the issue to them of forage as a loan from the government supply-depots was stopped, drew up regulations by observing which a correct account of the forage issued on loan could be kept.

These rules were as follows :—The station commandant or the contractor for transport will issue to the owner of every hired *araba* or waggon an account

book withstring and seal, in which are to be entered the name of the *araba* driver, how many horses, *arabas*, or waggons he has, what quantity of stores he carries, and from what place to what place, and where he wishes to receive payment. To draw forage, the *araba* driver presents his book to the station commandant, who, after verifying his demands, accompanies him to the local depot, the superintendent of which signs in the book to the quantity of forage issued. The superintendent of the magazine at once informs the Intendant by whom the *araba* driver or contractor is to be paid of the forage issued, and the Intendant will only issue payment if, after comparison with the information furnished by the superintendents, the book is found to be correct. Station commandants and transport contractors are to inform the Intendant by whom payment is to be made of every book issued.*

The Staff of the Field Force constantly applied to the Chief Controller for opinions on many subjects and on proposals of heads of departments. Thus, for example, the Chief Controller expressed his opinion upon the establishments for the management of the condensers and the electric light at Micháelovsk, the establishments and working of the Trans-Caspian Railway, &c.

The Commander of the Expedition expressed his appreciation of the services performed by the Field Control in a letter to Cherevánski in the end of March 1881, and in his last General Order to the Trans-Caspian Field Force, No. 232, dated St. Petersburg, 16th (28th) May 1881.

"Now," wrote General Skobeleff to Cherevánski, "the expedition has come to an end and General Röhrberg has been appointed by the Emperor to succeed me, and therefore I think it right to express to you, my dear Sir, how very useful in my earnest conviction the work of the Field Control has been, and how the members of the Control have earned the endless respect of all who have the interests of the service at heart or who have been placed above them.

"I conclude by a positive declaration that in my opinion it is impossible to carry on active operations without the Control participating in them to a very large extent.†

"The Order of the 16th (28th) May ran: "In handing over the command of the troops and the accounts of the past expedition, I shall always remember with feeling of boundless respect my dear comrades in Trans-Caspia.

"The expedition entrusted to us by His Majesty the Emperor, who now sleeps with God, and which His Imperial Highness the Commander-in-Chief of the Army of the Caucasus characterised as one of the most difficult ever undertaken, has now been brought to an end, thanks to the endurance and bravery of the splendid Caucasus troops and the unsurpassed devotion and feelings of duty of all soldiers and civilians who have served in it."

"The enormous difficulties of service on the lines of communication in a still unpacified country with such unfavourable conditions of climate and

* General Order, Trans-Caspian Field Force, No. 458, dated 14th (26th) October 1880: Reports on the operations of the Field Control submitted by the Chief Controller to the Temporary Commander of the Troops, 1880, Nos. 26 and 56, dated 1st (13th) and 12th (24th) July; No. 135, dated 20th August (1st September); No. 210, dated 16th (28th) September; Nos. 393 and 405, dated 7th (19th) and 13th (25th) December; Nos. 85, 87, and 111, dated 5th (17th) and 11th (23rd) February 1881; Nos. 210 and 276, dated 5th (17th) and 23rd March (4th April): Diary of the Staff of the Trans-Caspian Field Force, 1880, Nos. 10 and 49.—*Author.*

† Letter No. 2982 dated 24th March (5th April) 1881.—*Author.*

supplies make it my duty to thank all those who have served on those lines, and who have not had the good fortune to be engaged with the enemy.

"The close connection which has existed throughout the whole of the Akhál-Tekke Expedition between my troops, the civil field administration, and myself, has once more shewn how honourably Russians serve their Fatherland. The Control which was established on a sound and independent footing has succeeded in proving its competence and zeal in the complicated circumstances in war. I am glad to express my conviction that the timely establishment of a preliminary control set my mind at rest, and that is the best pledge of success for the leader of such an extensive and risky expedition. I thank the medical, treasury, postal and telegraph officials and the engineers who constructed the Trans-Caspian Railway."

CHAPTER XIX.

Medico-topographical description of Trans-Caspia—Conditions militating against the health of the troops in 1879—Sickness and mortality in 1879—Composition of hospital establishments in 1880-81—Sanitary measures—Sickness and mortality in 1880-81—Removal of the sick—Disinfection of the country—The Red Cross Society.

THE country through which the troops had to move to reach the Akhál-Tekke *oasis* is in every way different from the *oasis* itself. The latter, which begins at Kizil-Arvát and extends to the south-east along the foot of the Kopet-Dágh range as far as Gávárs, covers a tract 236 *vershs* (157½ miles) long and from 5 to 15 *vershs* (3½ to 10 miles) broad, which, although insufficiently watered, is tolerably well cultivated. On the other hand, the scene of the advance of our troops from Chikishliár to Bámi, along the rivers Atrak and Sumbár and from the Bay of Micháelovsk to Kizil-Arvát, is in every respect a desert.

The whole country between the Micháelovsk and the Atrak lines is a salt plain, covered in places with a thin layer of sand, which has in some parts been driven by the wind into hills and hillocks that change continually in outline. For the most part, the soil is friable, argillaceous, and much cut up by floods so that in dry weather it is covered with a fine dust, and in the rains it forms a huge swamp which it is excessively difficult to traverse.

Both the bases of the expedition, Chikishliár and Micháelovsk, are military settlements situated on the flat sandy shore of the Caspian Sea: Chikishliár, on account of its specially low-lying position, being much exposed to inundations during the storms caused by the strong north-west winds.

The route from Micháelovsk runs for the first 27 *vershs* (18 miles) to Mulla-Kári and somewhat further over sand hills, and then, as far as Balá-Ishem, traverses argillaceous salt tracks lying between small hillocks and depressions. Thence to the *oasis* there again stretches, in a line parallel with the Little Balkháns, a desolate and uniformly level waste beginning at Akhchá-Kuima.

The route from Chikishliár, after running for the first 6 *vershs* (4 miles) across sands, enters a salt plain which extends to the Atrak. The ground along this river is tolerably level, but rises gradually as Chát is approached, the latter place being situated on the promontory between the Atrak and the Sumbár. Here the soil is clayey and much cut up by rain, and the Atrak and Sumbár run in deep beds, so that the descent to the water presents considerable difficulty. After Chát the country becomes hilly, though still retaining its desert characteristics right up to Khwája-Kala. The Kopet-Dágh range, which in places attains a height of 2,300 feet, is of sand or lime formation quite devoid of fossils. At the foot of the hills and close to the *oasis* are some mud and limestone strata in which have been found some organic remains of the chalk formation, and in the ravines in the bed of the Sumbár are strata of clay and coarse sandstone of the tertiary formation.

On entering the *oasis* by either road a clayey soil is met with, which, in the neighbourhood of the numerous mountain streams and irrigation channels

that traverse it, is covered with a thin layer of very fertile black soil. The soil of the gorges in the hills also consists of decayed vegetation and matter evidently of alluvial origin.

Water is mostly obtained from dug-out wells in the desert country, although the water of the Atrak, Sumbár, may also be used: that in the *oasis* comes from springs and streams flowing from the Kopet-Dágh.

Both the well water and that from the rivers on the Micháelovsk and Atrak lines must be considered as in the highest degree injurious, for this has been shown to be the case by an analysis of it made by Dr. Otten and by its effects on the men during the Expedition of 1879.

At Chikishliár, in consequence of the unusual humidity of the air along the sea-coast, the atmospheric vapours become concentrated on the sand dunes round the place and thus form the well water. On account, however, of this humidity being derived from the sea, the water thus formed is saltish, and, being also filtered through asalt soil mixed with organic germs near Chikishliár, it is only fit for use for one or two days after a well has been dug. It soon gets the taste of sea water, and after that becomes discoloured and has a bad smell.

The water of the Atrak, Sumbár, and Chandir is little better. Flowing in clayey beds, it sometimes has more of the appearance of liquid mud than of water, and as in these rivers there are undoubtedly salt springs (such as that at Chát on the Sumbár almost at the point where it falls into the Atrak), the water in them is scarcely more potable than is that of the wells. In addition, on account of the mud, this water cannot be drunk in its natural state, and therefore requires to be filtered.

On the Micháelovsk line, from the sea up to Kazánjik, there are only brackish wells in hollows in the depressions of the desert and these lie mostly in groups, and have the appearance either of open pits, or of covered cisterns with walls and vaults wattled with *saksaul* wood. The depth of the latter is sometimes 21 feet and their breadth about 7 feet. In the vaults of these cisterns holes are made about 2½ feet in diameter and in these rain water is collected by means of channels cut for the purpose, but, on account of the mass of germs, &c., and the salt character of the soil, the supply soon acquires a bitterly salt taste and a yellow colour, and becomes quite unfit for human use, as, for example, at Aidin.

With the fine springs of Kazánjik 120 *versts* (80 miles) from Micháelovsk, begins an abundant and excellent water-supply along the road which continues right up to Kizil-Arvát.

To better show the kind of water we had to deal with during our expeditions, we may here adduce the following data from a pamphlet by Dr. Keldish, entitled *The Akhál-Tekke Field Hospitals in 1879*.

The worst water which can be used by men, according to the opinions of the Sanitary Commissions convened at Vienna and Weimar in 1864, ought to contain in 100,000 parts no more salt than the following:—

	Parts.
Lime, natron, and magnesia	18.0
Azotic acid	40
Sulphuric acid	6.3
Chlorine in the form Cl. Naz.	80
Organic matter, which disappears on the temperature being raised to 120°	5.00

while Otten's analysis gave the following figures in round numbers for every 100,000 parts of water :—

A. For well water.—

				Parts.
Dry remains	...	...	...	149.20
In those remains, organic matter	...	...	...	10.00
Ditto,	natron, potash, magnesium, calcium			
	and silica	...	...	70.96
Acid, sulphuric	...	...	...	16.00
Acid, carbonic	...	...	...	14.28
Acid, chloric	...	...	...	48.60

B. For river water.—

			Chandir and Sumbár.	Atrak.
Dry remains	...	...	150.00	154.80
In those remains, organic matter	...	...	13.60	12.00
Ditto	natron, magnesium, calcium, and			
	silica	...	81.76	65.92
Acid, sulphuric	...	...	66.00	60.00
Acid, carbonic	...	...	8.92	6.20
Acid, chloric	...	...	28.76	29.12

This analysis shows that the water of these rivers contains as many hurtful ingredients and as much natron and magnesia in solution as the well water, and therefore its use for cooking presents no advantages over that of well water. As a characteristic of both river and well water may be noted the absence of azotic acid, the influence of which in small quantities is said to be beneficial to the digestion.*

The other climatic conditions of Trans-Caspia, cannot be described as especially bad since the native Turkumáns, are strong and healthy. The climate of the *oasis* itself, which is much modified by the proximity of the hills, the gorges of which are full of vegetation and trees, may even be called very good; the desert, however, in its wearying monotony cannot but exercise a depressing moral effect on those who are strangers to it.

The air of the desert which is dry and burning, is very damp along the littoral and, at a high temperature is very stifling and difficult to breathe. This is especially noticeable at Chikishliár where the men of the force were literally bathed in perspiration after a sea-breeze. The temperature of the air varies in summer from $99\frac{1}{2}^{\circ}$ F. to 122° in the sun, the heat in a *kibitka* being hardly $4\frac{1}{2}^{\circ}$ less. At Chát in July and August 1879 the temperature reached $144\frac{1}{2}^{\circ}$ (Fah.

* In Dr. Keldish's book, from which the above figures are taken, other data regarding the Chikishliár water, from an analysis made by Dr. Gaberkorn, are given. This latter analysis, Dr. Keldish says, is incorrect, as the experimenter had not the necessary instruments. Gaberkorn gives a different analysis and states that in the Chikishliár water there are in 100,000 parts 62.5 parts Ca. O, CO². (Formula carbonate of lime).

125 parts PO³, Mg², O², NH³. (Pyrophosphate of ammoniacal magnesia).

625 " Ag., Cl. (Chlorate of silver).

187.6 " Ba. O. SO³. (Sulphuric acid of barium).

Reducing these data to the general rules, we get the following mixture in the water-supply of Trans-Caspia, per 100,000 parts :—

Sulphuric acid SO ³ —64.7 parts	...	Mg ² , O ² —38.9 parts.
Chlorate Cl.—208.3 parts	...	CoO.—35 parts.

—*Author.*

Observations taken at Chikishliár give the following results :—

1st	(13th)	April	Temp.	77°	F. calm and clear.
2nd	(14th)	"	"	88 $\frac{1}{2}$ °	" " "
3rd	(15th)	"	"	90 $\frac{1}{2}$ °	" " and cloudy (at 2 P.M. a storm).
4th	(16th)	"	"	79 $\frac{1}{2}$ °	" strong wind, clear.
5th	(17th)	"	"	83 $\frac{3}{4}$ °	" calm and clear.
6th	(18th)	"	"	86°	" " "
7th	(19th)	"	"	86°	" slight wind, clear.
8th	(20th)	"	"	81 $\frac{1}{2}$ °	" " " cloudy.
9th	(21st)	"	"	90 $\frac{1}{2}$ °	" calm, cloudy.
10th	(22nd)	"	"	81 $\frac{1}{2}$ °	" slight wind, clear.
11th	(23rd)	"	"	77°	" strong wind, rain.
12th	(24th)	"	"	95°	" calm and clear.
13th	(25th)	"	"	92 $\frac{3}{4}$ °	" " "
14th	(26th)	"	"	93 $\frac{3}{4}$ °	" slight wind, clear.
15th	(27th)	"	"	95°	" (106 $\frac{1}{4}$ ° maximum) calm and clear.
16th	(28th)	"	"	95°	" (113° maximum) " "
17th	(29th)	"	"	82 $\frac{5}{8}$ °	" strong wind, cloudy.
18th	(30th)	"	"	90 $\frac{1}{2}$ °	" slight " "
19th	April (1st)	May	"	97 $\frac{1}{4}$ °	" " " clear.
20th	" (2nd)	"	"	97 $\frac{1}{4}$ °	" " " "
21st	" (3rd)	"	"	95°	" " " "
22nd	" (4th)	"	"	81 $\frac{1}{2}$ °	" moderate wind, cloudy.
23rd	" (5th)	"	"	86°	" slight " "
24th	" (6th)	"	"	99 $\frac{1}{2}$ °	" calm and clear.
25th	" (7th)	"	"	95°	" and cloudy.
26th	" (8th)	"	"	95°	" (102 $\frac{7}{8}$ ° maximum) calm and clear.
27th	" (9th)	"	"	70 $\frac{1}{4}$ °	" strong wind, dark clouds, rain in evening and at night.
28th	" (10th)	"	"	70 $\frac{1}{4}$ °	" " " " rain.
29th	" (11th)	"	"	83 $\frac{3}{4}$ °	" slight wind, cloudy.
30th	" (12th)	"	"	90 $\frac{1}{2}$ °	" calm and clear.
1st	(13th)	May	"	92 $\frac{1}{2}$ °	" " "
2nd	(14th)	"	"	74 $\frac{1}{2}$ °	" moderate wind, cloudy.
3rd	(15th)	"	"	99 $\frac{1}{2}$ °	" calm and clear.
4th	(16th)	"	"	92 $\frac{1}{2}$ °	" " "
5th	(17th)	"	"	81 $\frac{1}{2}$ °	" strong wind, cloudy.
6th	(18th)	"	"	77°	" " " dark clouds, rain in evening.
7th	(19th)	"	"	65 $\frac{3}{4}$ °	" " " " rain.
8th	(20th)	"	"	88 $\frac{1}{2}$ °	" calm and cloudy.
9th	(21st)	"	"	95°	" " clear.
10th	(22nd)	"	"	74 $\frac{1}{2}$ °	" strong wind, dark clouds, rain.
11th	(23rd)	"	"	81 $\frac{1}{2}$ °	" " " cloudy.
12th	(24th)	"	"	90 $\frac{3}{8}$ °	" slight wind, " "
13th	(25th)	"	"	95°	" " " clear.
14th	(26th)	"	"	92 $\frac{3}{4}$ °	" calm and cloudy.
15th	(27th)	"	"	79 $\frac{1}{2}$ °	" strong wind, cloudy.
16th	(28th)	"	"	90 $\frac{1}{2}$ °	" calm and clear.
17th	(29th)	"	"	92 $\frac{1}{2}$ °	" " "
18th	(30th)	"	"	92 $\frac{3}{4}$ °	" " "
19th	(31st)	"	"	92 $\frac{3}{4}$ °	" " "
20th	May (1st)	June	"	92 $\frac{3}{4}$ °	" (104° maximum) moderate wind, clear.
21st	" (2nd)	"	"	86°	" moderate wind, cloudy.
22nd	" (3rd)	"	"	95°	" (110 $\frac{3}{4}$ ° maximum) calm and clear.
23rd	" (4th)	"	"	95°	" calm and clear.
24th	" (5th)	"	"	90 $\frac{1}{2}$ °	" moderate wind, cloudy.
25th	" (6th)	"	"	95°	" calm and clear.
26th	" (7th)	"	"	99 $\frac{1}{2}$ °	" " "
27th	" (8th)	"	"	92 $\frac{1}{2}$ °	" (101 $\frac{3}{8}$ ° maximum) calm and clear.
28th	" (9th)	"	"	86°	" (104° maximum) moderate wind, cloudy,
29th	" (10th)	"	"	83 $\frac{1}{2}$ °	" (95° maximum) " " dark clouds,
30th	" (11th)	"	"	90 $\frac{1}{2}$ °	" " " rain.
31st	" (12th)	"	"	86°	" strong " "

The temperature was taken at 11 A.M., as after this hour a lower thermometer was always observed. The figures placed within brackets above indicate the highest temperature of the day, which was usually attained about 10 A.M., and lasted for not more than half an hour. The prevailing wind was north-westerly, changing occasionally to north or west. A southerly wind was not observed during the whole two months and an easterly wind once only. The wind almost always rose at 11 A. M., and the nights and mornings were generally calm :—

				Temperature.			
1st (13th)	June	...	81 $\frac{1}{2}$ °	F.	86°	F.	81 $\frac{1}{2}$ ° F.
2nd (14th)	"	...	81 $\frac{1}{2}$ °	"	97 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
3rd (15th)	"	...	81 $\frac{1}{2}$ °	"	97 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
4th (16th)	"	...	81 $\frac{1}{2}$ °	"	99 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
5th (17th)	"	...	81 $\frac{1}{2}$ °	"	92 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
6th (18th)	"	...	79 $\frac{1}{2}$ °	"	92 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
7th (19th)	"	...	79 $\frac{1}{2}$ °	"	92 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
8th (20th)	"	...	79 $\frac{1}{2}$ °	"	99 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
9th (21st)	"	...	79 $\frac{1}{2}$ °	"	88 $\frac{1}{2}$ °	"	77° "
10th (22nd)	"	...	82 $\frac{1}{2}$ °	"	86°	"	79 $\frac{1}{2}$ ° "
11th (23rd)	"	...	79 $\frac{1}{2}$ °	"	86°	"	79 $\frac{1}{2}$ ° "
12th (24th)	"	...	79 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
13th (25th)	"	...	79 $\frac{1}{2}$ °	"	86°	"	79 $\frac{1}{2}$ ° "
14th (26th)	"	...	79 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
15th (27th)	"	...	79 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
16th (28th)	"	...	81 $\frac{1}{2}$ °	"	97 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
17th (29th)	"	...	79 $\frac{1}{2}$ °	"	99 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
18th 30th	"	...	81 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
19th	June (1st July)	...	79 $\frac{1}{2}$ °	"	86°	"	79° rain all day.
20th	" (2nd ")	...	79 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
21st	" (3rd ")	...	79 $\frac{1}{2}$ °	"	95°	"	79 $\frac{1}{2}$ ° "
22nd	" (4th ")	...	79 $\frac{1}{2}$ °	"	95°	"	79 $\frac{1}{2}$ ° "
23rd	" (5th ")	...	77°	"	95°	"	77° "
24th	" (6th ")	...	77°	"	97 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
25th	" (7th ")	...	81 $\frac{1}{2}$ °	"	99 $\frac{1}{2}$ °	"	81 $\frac{1}{2}$ ° "
26th	" (8th ")	...	83 $\frac{1}{2}$ °	"	95°	"	79 $\frac{1}{2}$ ° "
27th	" (9th ")	...	83 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
28th	" (10th ")	...	81 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "
29th	" (11th ")	...	79 $\frac{1}{2}$ °	"	90 $\frac{1}{2}$ °	"	79 $\frac{1}{2}$ ° "

In winter, in October, November, and December, the temperature of the air at noon rose to 77°F. and seldom fell below 54 $\frac{1}{2}$ °. In the end of December or in January the crests of the Kopet-Dagh were for some days covered with snow.

The wind was tolerably frequent, especially at sunset when a sort of night breeze set in being caused by the great fall in the temperature of the air. Such breezes blew every evening at Chát, not for any length of time but with great force, their moaning depressing the spirits of the men. Besides these prevailing winds from the N. W. and N. N. W. a north wind sometimes blew. Winds from the south-west and especially south-east (called *garmsir*) blew very seldom, but were almost insupportable on account of the great heat and dryness of the air in the desert which accompanied them. These winds caused even healthy men to bleed at the nose, but luckily they blew very seldom and only for a short time. Sudden whirlwinds accompanied by sand spouts were tolerably common, appearing usually in the midst of calm weather, overturning *kibiikas*, and destroying everything that came in their way. The troops who were then at Bámi will long remember such a whirlwind on the night of the 15th—16th (27th—28th) February 1881, by which the hospital

camp was overthrown, tents torn to pieces, kits scattered, articles broken, and many sick contused.*

Rain seldom falls, except in winter, *i.e.*, in February and March; it is of great benefit as it improves the water in the wells and refreshes the air, which, during the long droughts, has become filled with dust. In 1880 rain fell only on the 23rd August (4th September), 15th (27th October), and 19th November (1st December), and then there was dry weather till the 11th (23rd January) 1881.

The steppe vegetation of the country is in the highest degree poor. According to Dr. Keldish's notes, the principal varieties are:—

- (1) A creeping plant called *pichak* of the Convolvaceæ family which grows in the sand; camels will eat it occasionally and when they are hungry.
- (2) *Jantak* (*Alhagi camelorum*), the usual food of the camel, used in some parts of Central Asia for the manufacture of a peculiar sort of gum, from which the natives prepare a decoction named *tarenjebin*. Besides this, *Jantak*, mixed with clay, is used for smearing the walls of the mud huts and the ramparts of the fortresses of the Turkumáns.
- (3) *Saksaul* (*Anabasis ammodendra*).—A shrub which grows to a height of 10½ feet, and is found in sandy localities. *Saksaul* is used as fire-wood, and being dry and hard it burns for a long time and gives out much heat. There is little of it in the steppe, but it is more frequently found as the hills are approached.
- (4) *Irgán*.—A reed growing on the banks of the Atrak and Sumbár and also on many lagoons of the Caspian.

The *flora* of the *oasis* is richer and more varied, especially in those parts which are abundantly supplied with fresh water. Thus in the defiles of Kizil-Arvát, Bámi, &c., are found maples, cedars, and Caucasian junipers, and also bushes such as barberry, rose, *Rhamnus*, *Tycium*, &c. *Clematis* is found creeping among these bushes. The mills and canals of the Tekkes are surrounded with willows.

Among the field crops the principal place must be assigned to a kind of *maize* which is much used as food for men, but more especially for horses. All the more important Tekke settlements are surrounded by fields of it. Melon and water-melon beds are also met with but vegetable gardens and vineyards are only found round the very largest villages.

The troops met with wild asses (*kulán*), goats (*jairán*), and wild pigs (*kabán*), especially on the banks of the rivers; but tigers and panthers are also seen with tolerable frequency, their skins being often noticed in the possession of Turkumáns. These animals are, however, not indigenous to this part of the country, but come along the reedy banks of the rivers from Mazándarán and Astrábád. The bird most frequently seen is the steppe partridge; pheasant are very seldom met with. At Chát and Chikishliár there are many larks, but no sparrows. Eagles, falcons, jackdaws, and even magpies are also found.

Of the insect world, flies and a large number of grey butterflies, which come out by night and which are a very plague to an army, must be mentioned. Dr. Keldish ascribes the large number of these annoying insects to the presence of cavalry and to the dung.

* Sanitary Report upon the Akbál-Tekke Expedition of 1879-81, by the Inspector of the Medical Department in the Caucasus, page 46.—*Author*.

Among the insects indigenous to the country, besides wood-beetles, *jerboas* (*dipus*), rats, and mice, must be enumerated vermin and reptiles, such as snakes and lizards, and poisonous insects, such as scorpions, tarantulas, and *phalangæ*, which exist in untold multitudes in that dreary desert.

The experience of the expedition of 1879 shewed that, besides peculiarities of climate and of the topography of the country, there were a large number of other causes which had a pernicious influence on the health of the troops.

The principal causes of the large amount of sickness in the force were undoubtedly the execrable water, the quality of which may be judged from the analysis given above. While causing illness, this same water also prevented a cure being effected as it constantly weakened the system of the soldier. Next must be placed the insupportable heat, from which the men could not be protected, and at the same time great changes of temperature when the sun went down. At Chât, this cause of disease raged mercilessly, while at Chikishliâr the excessive dampness of the air kept the men always in a perspiration, and therefore when the least wind arose they caught cold.

To the unfavourable conditions must also be added the dreary aspect of the theatre of operations, which awakened weariness and disgust, and the unavoidable amount of work demanded from the men of the force, before military operations began at all. Wells had to be dug and renewed every day, roads had to be repaired, stores unloaded from steamers, and forced marches made in unbearable heat, and all these exertions could not but affect the health and strength of the soldier, all the more so when he was employed for long periods together on such duties.

In consideration of this and of the privations inseparable from operations in the desert, for the food of the soldier in 1879 was assigned the so-called "ship's ration," which the Commander of the Expedition could increase if he thought fit. Thus (in addition to 2.25 lbs. of biscuit and .45 lbs. of buckwheat groats) the soldier should have received daily—

Meat	...	...	...	...	9	lbs.
Salt	...	...	...	...	5	oz.
Wheat flour	...	...	...	...	6	"
Rice-groats	...	...	...	...	4.8	"
Cabbage	...	...	...	...	7.5	"
Ghi	...	...	...	...	.75	"
Onions	...	...	...	...	6	"
Garlic	...	...	...	...	.15	"
Fruit acids	...	...	...	...	.75	"
Laurel leaves	...	...	...	...	.024	"
Pepper	...	...	...	...	.024	"

For 100 men *per diem* from 1st (13th) May to 1st (13th) September—

Tea	...	...	...	...	9	lbs
Sugar	...	...	...	...	2.7	"

Spirits *per month* and *per man* 2 half-measures from 1st (13th) September to 1st (13th) May:—

Tea	...	...	...	...	3	lbs.
Sugar	...	...	...	...	9	"

Spirits *per* month and *per* man 4 half-measures.* When it was considered possible, an extra 45 lbs. of meat was added to this ration, and an attempt was made to make up for the deficiency of cabbage during the summer with pickled brown-leaved garlic, the anti-scorbutic properties of which had been proved by previous experience. From the 15th (27th) July, on account of the heat, spirits were replaced by tea, and the former were only issued again five times a week, in November when the nights began to be cold. In the winter months, and afterwards to the 1st (13th) May 1880, an issue of cabbage at 9 lbs. *per* man *per diem* was decided on.†

"It would appear," writes Dr. Keldish on this subject, "that the soldier provided with this ration should have been satisfied in every respect. Unfortunately, besides the want of fresh food, the soldier frequently did not receive all that was due to him. This was mostly caused by the food-stuffs not being delivered in proper time or regularly, so that there was sometimes a superabundance of one article and none of another in the magazines."‡

As the force moved into the steppe and as transport began to get more and more scarce, the latter evil was felt more and more, so much so that at Chát the soldiers for weeks together received neither cabbage nor brown-leaved garlic, not to speak of vinegar, onions, and other articles. Respecting meat, it may be said that the cattle delivered overland from Persia in crossing the steppe, without food or water, had lost much of their strength, and consequently their meat had lost its nutritive qualities. To keep cattle at Chikishliár was impossible on account of the want of forage, and therefore, instead of 9 to 1.35 lbs. of meat, the soldiers often received 1.35 lbs. of bones, bowels, and sinews. The meat was also not always healthy, and reports state that the cattle which arrived from Persia were not unfrequently suffering from slight diseases of the liver and kidneys. The medical officers therefore demanded that of the entrails only the hearts of the animals should be issued to the troops for food, as in the other entrails, worms and *bacteria* were frequently found which generated various hurtful substances, and these in their turn might produce various diseases among the men.§ On the 13th (25th) April 1880, no beef was issued to the troops at Chikishliár, because in the opinion of the doctors, it was, "dry, of a pale red colour, and without fat; and on being cut in many places, among the muscles were observed numerous whitish vessels about the size of a lentil grain. When examined under the microscope these vessels appeared to be formed of a mass of oval cells, each enveloped with a separate transparent cover with a dark centre. The fibres of the muscles round the cells appeared in places to be torn and eaten away. On the ground of the outward appearance of the meat and its above-described appearance under the microscope, we have arrived at the conclusion that the said meat contains the germs of worms, and it is therefore quite unfit for food."¶

It had been proposed to begin and finish the Expedition of 1879 in the course of the summer months, and therefore the soldiers were only furnished with summer clothing, consisting of two drill blouses, two shirts, summer

* Diary of the Staff of the Trans-Caspian Field Force, No. 4 of 1880.—*Author*.

† Telegram from General Murávieff, to the Chief of the Staff in the Caucasus, No. 985, dated 27th February (11th March) 1880. Telegram from General Lázareff to General Murávieff, No. 657, dated 11th (23rd) March 1880.—*Author*.

‡ The Akhál-Tekke Field Hospital in 1879, page 19.—*Author*.

§ Report from Dr. Gaberkorn, No. 20, dated 30th January (11th February) 1880.—*Author*.

¶ Surgeons Jiznevski, Jurávieff, and Turbin.—*Author*.

‡ Report dated Chikishliár 13th (25th) April, 1880.—*Author*.

trousers, forage cap with covers and neck-flaps, and leather boots suitable for campaigning in the steppe. The plans failed. The changes from midday heat to the cold of the evening, although the thermometer shewed from 70½° to 77°F, were felt even in summer, and in September and November the soldiers were literally shivering from cold at night. When dysentery and fevers made their appearance a terrible want of flannel cholera-belts was experienced; some of the troops, however, were luckily supplied with these from the stores of the Red Cross Society which had been brought up after the force by its plenipotentiary, Sarajeff.

Dr. Keldish says distinctly that the troops of the expeditionary force had no shelter, although during the expedition it had been decided to supply them with the French pattern tents. These tents, which consist of two long four-sided sheets uniting at an angle, are quite unfitted for a campaign in the burning desert. Six men are supposed to be placed in each, but, if there are that number, they have to lie so close that it is difficult for a man to turn over on to his other side. In such a tent there is little air, the heat is intolerable, and in rain the tent does not keep the men dry. The only good point of these *tentes d'abri* is their lightness, and this makes them suitable for campaigns when the baggage is very restricted. In such tents the soldiers of the force lived till January 1880, when the Kirghiz *kibitkas* arrived at Chikishliár from Astrakhán. The men lay on the bare ground occasionally with a felt or little straw below them, and hence arose no slight cause for sickness. Although Turkumán *kibitkas* had been prepared for the hospitals at the beginning of the expedition, some of them were issued to the officers and some were taken by the Staff and Departments and so many of the sick at Chikishliár were worse housed than the healthy men.

In 1879, the total number of cases of sickness and wounds was 18,943. Of these 15,654 were cured, and 309 men died, 1,673 were transferred to the medical establishments in the Caucasus, and 306 remained in hospital at the end of the year.*

The character of the diseases may be judged from the following figures:—

The disease causing the largest amount of sickness was intermittent fever, the total number of cases being 8,324, of which 7,501 were cured, 52 men died, 737 were transferred to the Caucasus, and 34 remained in hospital at the beginning of 1880. The monthly figures for 1879 are as follows:—

	Admitted.	Cured.	Died.	Transferred.	Remained.
May	1,155	1,021	<i>nil</i>	19	115
June	1,362	1,245	1	55	176
July	1,637	1,397	7	163	242
August	1,179	939	25	170	287
September	1,224	1,153	10	139	209
October	954	875	6	135	147
November	537	572	1	41	70
December	276	299	2	11	34

There was no reason to ascribe the prevalence of this disease to local peculiarities, as the country has no marshes which might cause malaria, so

* In Appendix No. 99 see Return of Admissions into, and Discharges from, the Hospitals of Trans-Caspia during the Expeditions of 1879-80. In Appendix No. 100 see Return of the Monthly Fluctuations of the Sick and Wounded. In Appendix No. 101 see Return of the Fluctuations of the Sick and Wounded in the several Arms of the Force.—*Author*.

Spirits *per* month and *per* man 4 half-measures.* When it was considered possible, an extra 45 lbs. of meat was added to this ration, and an attempt was made to make up for the deficiency of cabbage during the summer with pickled brown-leaved garlic, the anti-scorbutic properties of which had been proved by previous experience. From the 15th (27th) July, on account of the heat, spirits were replaced by tea, and the former were only issued again five times a week, in November when the nights began to be cold. In the winter months, and afterwards to the 1st (13th) May 1880, an issue of cabbage at 9 lbs. *per* man *per diem* was decided on.†

"It would appear," writes Dr. Keldish on this subject, "that the soldier provided with this ration should have been satisfied in every respect. Unfortunately, besides the want of fresh food, the soldier frequently did not receive all that was due to him. This was mostly caused by the food-stuffs not being delivered in proper time or regularly, so that there was sometimes a superabundance of one article and none of another in the magazines."‡

As the force moved into the steppe and as transport began to get more and more scarce, the latter evil was felt more and more, so much so that at Chát the soldiers for weeks together received neither cabbage nor brown-leaved garlic, not to speak of vinegar, onions, and other articles. Respecting meat, it may be said that the cattle delivered overland from Persia in crossing the steppe, without food or water, had lost much of their strength, and consequently their meat had lost its nutritive qualities. To keep cattle at Chikishliár was impossible on account of the want of forage, and therefore, instead of 9 to 1.35 lbs. of meat, the soldiers often received 1.35 lbs. of bones, bowels, and sinews. The meat was also not always healthy, and reports state that the cattle which arrived from Persia were not unfrequently suffering from slight diseases of the liver and kidneys. The medical officers therefore demanded that of the entrails only the hearts of the animals should be issued to the troops for food, as in the other entrails, worms and *bacteria* were frequently found which generated various hurtful substances, and these in their turn might produce various diseases among the men.§ On the 13th (25th) April 1880, no beef was issued to the troops at Chikishliár, because in the opinion of the doctors, it was, "dry, of a pale red colour, and without fat; and on being cut in many places, among the muscles were observed numerous whitish vessels about the size of a lentil grain. When examined under the microscope these vessels appeared to be formed of a mass of oval cells, each enveloped with a separate transparent cover with a dark centre. The fibres of the muscles round the cells appeared in places to be torn and eaten away. On the ground of the outward appearance of the meat and its above-described appearance under the microscope, we have arrived at the conclusion that the said meat contains the germs of worms, and it is therefore quite unfit for food."¶

It had been proposed to begin and finish the Expedition of 1879 in the course of the summer months, and therefore the soldiers were only furnished with summer clothing, consisting of two drill blouses, two shirts, summer

* Diary of the Staff of the Trans-Caspian Field Force, No. 4 of 1880.—*Author*.

† Telegram from General Murávieff, to the Chief of the Staff in the Caucasus, No. 985, dated 27th February (11th March) 1880. Telegram from General Lázareff to General Murávieff, No. 657, dated 11th (23rd) March 1880.—*Author*.

‡ The Akhál-Tekke Field Hospital in 1879, page 19.—*Author*.

§ Report from Dr. Gaberkorn, No. 20, dated 30th January (11th February) 1880.—*Author*.

¶ Surgeons Jiznevski, Jurávieff, and Turbin.—*Author*.

‡ Report dated Chikishliár 13th (25th) April, 1880.—*Author*.

trousers, forage cap with covers and neck-flaps, and leather boots suitable for campaigning in the steppe. The plans failed. The changes from midday heat to the cold of the evening, although the thermometer shewed from $70\frac{1}{4}^{\circ}$ to 77°F , were felt even in summer, and in September and November the soldiers were literally shivering from cold at night. When dysentery and fevers made their appearance a terrible want of flannel cholera-belts was experienced; some of the troops, however, were luckily supplied with these from the stores of the Red Cross Society which had been brought up after the force by its plenipotentiary, Sarajeff.

Dr. Keldish says distinctly that the troops of the expeditionary force had no shelter, although during the expedition it had been decided to supply them with the French pattern tents. These tents, which consist of two long four-sided sheets uniting at an angle, are quite unfitted for a campaign in the burning desert. Six men are supposed to be placed in each, but, if there are that number, they have to lie so close that it is difficult for a man to turn over on to his other side. In such a tent there is little air, the heat is intolerable, and in rain the tent does not keep the men dry. The only good point of these *tentes d'abri* is their lightness, and this makes them suitable for campaigns when the baggage is very restricted. In such tents the soldiers of the force lived till January 1880, when the Kirghiz *kibitkas* arrived at Chikishliár from Astrakhán. The men lay on the bare ground occasionally with a felt or little straw below them, and hence arose no slight cause for sickness. Although Turkumán *kibitkas* had been prepared for the hospitals at the beginning of the expedition, some of them were issued to the officers and some were taken by the Staff and Departments and so many of the sick at Chikishliár were worse housed than the healthy men.

In 1879, the total number of cases of sickness and wounds was 18,943. Of these 15,654 were cured, and 309 men died, 1,673 were transferred to the medical establishments in the Caucasus, and 306 remained in hospital at the end of the year.*

The character of the diseases may be judged from the following figures:—

The disease causing the largest amount of sickness was intermittent fever, the total number of cases being 8,324, of which 7,501 were cured, 52 men died, 737 were transferred to the Caucasus, and 34 remained in hospital at the beginning of 1880. The monthly figures for 1879 are as follows:—

	Admitted.	Cured.	Died.	Transferred.	Remained.
May	1,155	1,021	<i>nil</i>	19	115
June	1,362	1,245	1	55	176
July	1,637	1,397	7	163	242
August	1,179	939	25	170	287
September	1,224	1,153	10	139	209
October	954	875	6	135	147
November	537	572	1	41	70
December	276	299	2	11	34

There was no reason to ascribe the prevalence of this disease to local peculiarities, as the country has no marshes which might cause malaria, so

* In Appendix No. 99 see Return of Admissions into, and Discharges from, the Hospitals of Trans-Caspia during the Expeditions of 1879-80. In Appendix No. 100 see Return of the Monthly Fluctuations of the Sick and Wounded. In Appendix No. 101 see Return of the Fluctuations of the Sick and Wounded in the several Arms of the Force.—*Author*.

Dr. Keldish traced the origin of these fevers to the winds which blew from Persia, where in the fertile valley of the Gurgán, with the great dampness, the powerful heat, and the rich tropical vegetation, marshy fevers have a very malignant character.* This opinion is also supported by the fact that the fevers which attacked the troops had very often the malignant, algid, diaphoretic, and comatose forms, besides which they broke out in a large number of cases at a time, especially after south-east and east winds.

The disease occupying the second place in 1879 was enteric catarrh, which frequently developed into dysentery. There were 3,618 cases of enteric catarrh and 984 of dysentery, giving a total of 4,602 cases of both—

Of those there were cured	{	enteric catarrh	... 3,408	} 4,155
		dysentery	... 747	
There died	{	enteric catarrh	... 68	} 204
		dysentery	... 136	

202 men were transferred to the Caucasus, and 41 were remaining at the beginning of 1880.

The chief causes of this disease were bad water, which had a very enfeebling effect, and the want of warm clothing, especially of cholera-belts, to prevent chills on the stomach.

1,042 men fell ill of scurvy, of whom 219 were cured, 8 died, 737 were transferred to the Caucasus, and 78 remained in hospital at the beginning of 1880. The greatest amount of it was in September, when 322 men were attacked, of whom 25 were cured and 3 died. This disease was characterized by its persistency, and therefore a large number of the cases had to be transferred to the Caucasus. Its cause must be sought for in the absence of fresh vegetables, an insufficiency of vinegar and fruit acids, and most of all in the bad moral condition of the troops after their defeat on the 28th August (9th September).

Of the usual illnesses which always follow troops, there were 4,079 cases, of which 3,072 were cured, 36 terminated fatally, 828 were transferred to the Caucasus, and 143 remained at the beginning of 1880 in the general and regimental hospitals and infirmaries of Trans-Caspia.

The percentage of eye diseases, contrary to all expectation, was quite insignificant. The total number of cases in 1879 was 544, of which 492 were cured, 51 were transferred to the Caucasus, and 1 was left at the beginning of 1880. The greatest number of cases occurred in June, when 146 men were attacked. Generally during the four summer months there were 409 cases, or 74 *per cent.* of the total number. The causes of these diseases were the great glare and the dry heat of the hard soil.

The total loss of the army by wounds in action was 352 men, of whom 173 were cured, 8 died, 166 were transferred to the Caucasus, and 5 were left at the beginning of 1880.

The quickness with which flesh wounds cicatrized in the Akhál-Tekke Expedition was astonishing. The most severely wounded men were healed even under the unfavourable conditions under which the greater part of them were placed after the unsuccessful attack upon Gok-Tapa. Thus, after a march of a month from Gok-Tapa to Chát, of 213 wounded, only 107 were still on the sick list, and of these only 30 had to be left in hospital at Chát, the others

* "Where it is hot, damp, and green, there are fevers."—Dr. Toropoff.—*Author.*

continuing the march with their regiments to Chikishliár. Notwithstanding the terrible wounds received by many, the number of deaths from wounds was insignificant, and men with 23 sword-cuts, mostly in the head, recovered perfectly.

The troops were not attacked by typhus during the expedition of 1879, and only in August was there one sporadic case of abdominal typhus from which the man attacked died. The disease did not spread. There were also four cases of abscess of the liver, all of which were fatal. Dr. Keldish, who attended these cases at Chát, ascribed the cause of them to the bad quality of the water which obstructed the blood, and therefore demanded increased activity of the liver. Carbuncle, to which General Lázareff succumbed, was not often met with, and the fatal issue of the General's case was due to his having paid no attention to it at first. In another case, which was operated upon in good time, the carbuncle did not appear again. Among the soldiers there were no cases of it.

Combining all the above figures, we get the following general view of the sanitary state of the troops from May to December 1879:—

Every month there were 2,094 admitted, <i>i.e.</i> , per 1,000 men of force	...	...	...	200 or 20 %
Every month there died 33.25, <i>i.e.</i> , per 1,000 men of force	...	...	...	3.84 or .38 %
Every month 33 more wounded were admitted, <i>i.e.</i> , per 1,000 men of force	...	...	...	3.2 or .32 %
Every month there died of the wounded 1, <i>i.e.</i> , per 1,000 men of force	...	...	...	.1 or .01 %

According to the varieties of disease, of the total number of 18,943 men admitted to hospital, there were suffering from—

Fevers	...	...	43.9 % of whom	.62 % died.
Enteric catarrh	...	...	19.1 %	" 1.9 % "
Dysentery	...	...	5.2 %	" 13.8 % "
Scurvy	...	...	5.5 %	" .8 % "
Eye diseases	...	...	2.8 %	" .0 % "
Other diseases	...	...	21.7 %	" .77 % "
Wounds	...	...	1.8 %	" 2.8 % "

Of 100 men who died, the causes were—

Fevers	...	...	...	13.7 men
Enteric catarrh	...	...	...	22 "
Dysentery	...	...	...	44 "
Scurvy	...	...	...	2.6 "
Other diseases	...	...	...	11.7 "
Wounds	...	...	...	.6 ,*

We have seen above how in the Expedition of 1879 a few special measures were taken to preserve the health of the troops in a steppe campaign. Thus, ship's rations were issued to them and the necessary changes were made in their clothing. Still the campaign of 1879 shewed that what had been

* All these figures are based on the data given in the Return of the Monthly Fluctuations amongst the Sick and Wounded in the Hospitals of the Trans-Caspian Field Force, (see Appendix No. 100).—*Author*.

done was far from sufficient, as the amount of sickness in the force was very excessive.

In working out the plans for the expedition of 1880, it was therefore proposed, in order to avoid such an amount of sickness, to take the following measures:—*

- (1) Only men in perfect health were to be sent to the force. Before any troops started to join the expedition, its commanding officer, assisted by surgeons, was to inspect all the men and reject all who were weak in the chest, suffering from chronic diseases of the bowels, poor-blooded, or subject to eye diseases.
- (2) The men's rations were to be increased. Tea was to be issued so as to be drunk instead of water three times a day. The use of biscuit as food was to be avoided, as it is very hurtful when the water is bad, and without water it is apt to cause disorders of the stomach. Afterwards, in September 1880, a board, with the Commander of the Expedition as President, assembled to revise the soldiers' rations and to fix their proper proportions, taking into consideration the conditions of life of the troops in Trans-Caspia; and it decided as follows—to give each man *per diem* bread 2·7 lbs. or biscuit 2·025 lbs., groats 7·2 oz., *ghî* ·75 oz., cabbage for *krâss* 7·2 oz., fruit acids ·45 oz., salt 1·5 oz., meat ·9 lbs., laurel leaves ·024 oz.; to allow each man *per month*, rough ground pepper ·75 oz., tea 4·8 oz., sugar, in summer, 2·7 lbs, in winter [1st (13th) October to 1st (13th) April] 1·8 lbs.; spirits, in winter only, 1 measure. This issue was to be the normal (peace) ration. In war and on forced marches the ration was each time to be fixed by special order of the Temporary Commander of the Troops.†
- (3) The troops were to be provided with clothing corresponding to the season of the year. In summer they were to have sail-cloth blouses, nankeen trousers, and cloth forage caps with sail-cloth cover and neck-flap fastened on by hooks. As the boots of tawed leather, used in the campaign of 1879, appeared to be unsuitable, the leather having become dry and the soldiers having complained that the soles became hard, it was proposed to provide the troops with sail-cloth, out of which they were to make for themselves shoes with thin soles and low heels, in addition to their two pairs of boots. For winter, the troops were to be provided with sheepskin coats reaching to the knee and short goatskin coats, such being useful for preventing chills of the stomach.

As shelter for the troops, General Skobeleff had ordered at Orenburg 200 *kibitkas* and 1,200 *yulameikas*. In addition to these, the force was provided with new pattern tents, and, to give the men as much room as possible, only two-thirds of the regulation number were told off to each tent. Felts were provided as bedding.

* Diary of the Staff of the Trans-Caspian Field Force, No. 20; Report from the Inspector of the Medical Department in the Caucasus, No. 5978, dated 26th April (8th May) 1880.—*Author*.

† Thus on 1st (13th) December the issue of spirits was increased to 8 measures a month, which made 16 rations of *vodka*. Commanding officers were only allowed to issue spirits on damp cold days, by preference, in the evening; and, generally speaking, spirits were to be issued very sparingly, so as to have a reserve for future wants in the event of forced marches or continuous rainy weather.—General Order No. 509, dated 21st November (3rd December) 1880: Diary of the Staff of the Trans-Caspian Field Force, No. 4 of 1880, page 397.—*Author*.

To settle the question of the best supplies for the sick and to modify the tables of stores and equipment for the temporary field hospitals in Trans-Caspia, a special committee was assembled by the Inspector of the Medical Department in the Caucasus. This committee worked out the following regulations, which were confirmed by the Commander of the Army of the Caucasus, Prince Melikoff, General and A. D. C. :—*

- (a) In view of the difficulty of preparing and delivering fresh bread on the line of march or when hospitals are halted at points in the steppe, a supply of rusks made of white bread is to be kept, which, if required, may be issued instead of bread, 1·5 lbs. of rusks being issued in lieu of 1·5 lbs. bread.
- (b) Sago is to be introduced as a store and issued in rations of 1·2 oz. each, to vary the food, and also in view of the beneficial effects of this article on weak stomachs.
- (c) To provide against the meat having lost its nourishing qualities, a supply of preserved soup is to be kept in tins, the ration being 1·5 oz.
- (d) As it is impossible to have fresh milk, Swiss condensed milk is to be introduced into the table of stores, 9 lbs. of this being allowed for every 6 rations of milk gruel.
- (e) To vary the food and improve its taste, there are to be taken supplies of fresh preserved vegetables, horse-radish, dried fruits, the dried aromatic herbs estragon and marjoram, cranberry for extract, lime-juice, and officers, coffee, cocoa, and chocolate.
- (f) Although all these extras have been introduced, the usual issues of rations are to be made, and claret, brandy, sherry, vermouth, and spirits, which are very useful under the local conditions, may be added as required.†

To prevent sickness, the Commander of the Expedition ordered that bread was to be baked and *kvas* prepared by the troops; that when on detachment soldiers were not to receive biscuit, but baked bread and were to have cooked food on the march; that water was to be kept in the barrels; that field beds were to be made in addition to the bedding felts; and that tobacco was to be obtained.‡ Vegetables and greens were constantly sent for from Astrakhán and Persia, but the greater part of these was spoiled by the heat on the way, and only a very small quantity reached the troops. As it was impossible to keep these supplies in the magazines, General Skobeleff gave orders that the Intendance, immediately upon vegetables being delivered at Chikishliár or Krásnovodsk, was at once to send them up the lines, giving notice to the road commandants. The latter were to inform the station commandants of this and order fresh greens and vegetables to be issued to the troops.§ Quinine was to be arranged for.||

At the end of August, a special committee settled the scale of issue of the various anti-scorbutics. Potatoes and beet-root were considered to be articles which might be issued instead of cabbage, the issue being fixed at 7½ oz. *per* day and *per* man; pepper-corns might replace rough ground-pepper in the same

* Diary of the Staff of the Force, No. 12, page 175: Report from the Inspector of the Medical Department in the Caucasus, No. 7565, dated 27th May (8th June) 1880.—*Author*.

† See table in Appendix 30 (Chapter III).—*Author*.

‡ Instructions to Artishhevski, No. 4331, dated 23th July (9th August) 1880.—*Author*.

§ General Order, Trans-Caspian Field Force, 1880, No. 315, dated 18th (30th) September.—*Author*.

|| Report from Artishhevski, No. 1877, dated 27th August (8th September) 1880.—*Author*.

quantity (.024 oz.). Radishes, as a relish, might be issued, ground, to those suffering from scurvy and to corps designated by the medical officers, at the rate of $7\frac{1}{2}$ oz. per day and per man, and a supply of this vegetable was therefore to be prepared for one-third of the whole number of troops in Trans-Caspia for the period from the 1st (13th) October 1880 to the 1st (13th) January 1881. Mustard was to be issued to all troops, allowing .9 oz. of it *per month and per man*, and it was to be used with vinegar for the period from the 1st (13th) September 1880 to the 1st (13th) January 1881.* Lime-juice for drinking with water or tea was to be issued at the rate of .075 oz. *per man per diem*, and for cooking at that of .15 oz. *per diem*.

The question of the medical organization of the force during the expedition of 1880-81 was decided as follows.

Each corps was to have the regulation number of medical officers and hospital assistants as follows :—

2 regiments of 19th Division	...	2 senior and 6 junior surgeons, total,	8
8 battalions of 21st	...	8 " " "	8
10 <i>sotnias</i> of Cossacks	...	2 " " "	2
Division of dragoons	...	1 " " "	1
2 batteries of 19th and 2 of 21st			
Brigade	...	2 " " "	2
45th Ammunition Column	...	1 " " "	1
<hr/>			
Total			22 surgeons.

The other corps, such as the company of sappers, the two *sotnias* of Lába Cossacks, and 4th Battery 20th Brigade, on account of their small numbers, had no surgeons, but only the hospital assistants, on their establishments. The surgeons of other corps in the same stations had to superintend their sanitary arrangements.

Each separate corps was to have with it hospital stores for the regulation number of beds; but taking into consideration the difficulty of transporting these stores on a steppe campaign, it was afterwards considered sufficient that each corps should take with it hospital stores for half that number only, *i.e.*, *per battalion* 6 beds, *per division of dragoons* or every two *sotnias* of Cossacks 3 beds, and *per battery and ammunition column* 2 beds, giving a total of accommodation for 138 sick with the corps of the force. To supplement these regimental hospitals orders were given to form two independent divisional hospitals, each with 2 beds for officers and 40 for soldiers to receive wounded on the battlefield and transport sick and wounded to the nearest temporary field hospital.†

By order of General Skobeleff, each battalion was supplied for the transport of its sick with 3 carts, each battery with 2, the ammunition column with 5, the division of dragoons with 4, each *sotnia* of Cossacks with 1, and each divisional hospital with 20, giving 113 in all, and affording accommodation for 226 sick or wounded. As by having these carts it was possible to utilize them as beds for the sick during halts, orders were given to strike out camp equipage and tents from the list of hospital stores, each corps having only one soldier's tent for its surgery.‡ Two felts were to be supplied as bedding for each sick man in the carts,§ and in addition a part of the smaller hospital stores was placed in each.

* Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 4, page 395.—*Author*.

† These two therefore corresponded to our "bearer companies".—*J. M. G.*

‡ For divisional hospitals, 2 soldier's tents for surgeries, 2 as operating tents, and one as a dead-house.—*Author*.

§ As it was difficult to obtain hay for mattresses and pillows.—*Author*.

For the transport of the rest of the hospital stores, weighing about 4·8 cwt. per battalion and 2·5 cwt. in each of the smaller corps, camels, carrying not more than 2·5 cwt. each, were to be used. The total number required for all the hospital stores was 50.*

In consequence of the bad effects of the climate of Trans-Caspia on many medicines, and principally on account of the necessity of using many articles not included in the normal equipment of a hospital, the said equipment was revised and many useless articles were cut out, others again being introduced. Among those cut out were aloes, essence of bitter almonds, carbonate of potash, saltpetre, strychnine, chloride and acetate of zinc, &c., and among those introduced were salicylic acid, catechu, Albespeir's plasters, amygdaline, ergotine, musk, aromatic paraffin oil, Dover's powders, undiluted (90 per cent.) spirits, vasemine, veratrine, mercurial ointment, and Rigollot's mustard leaves. The supplies of castor oil, opium, gum arabic and sulphuric atropine were also increased, and only quinine in its neutral sulphate form was to be taken.† The supply of bandaging materials was curtailed and improved, as also the surgical and therapeutic instruments and medical appliances. Lister's bandages were adopted as the principal ones, as they allowed of the dressing being changed once in three or four days.

A field dispensary was planned by Dr. Remmert, Inspector of the Medical Department in the Caucasus, and ordered from St. Petersburg. It consisted of 14 large and 14 small pack-saddles, each fitted with 2 boxes, the large saddles weighing about 144 lbs., the smaller from 72 to 108 lbs. In these boxes, the outer walls of which consisted of basket-work covered with tarpaulin soaked in ozokerit and covered with oil-paint, were packed, with due observance of economy of space and weight, surgical instruments, bandaging materials, and medicines, all precautions being taken that the articles should not suffer from shaking and that the jars with liquid medicines should not be broken. The cost of each such pack-saddle, with harness, &c., for camels or horses, complete, was 200 *roubles*.‡

In the Expedition of 1879 there had been formed one temporary Akhál-Tekke hospital with 630 beds, which was established by sections, the first (210 beds) at Chikishliár on the 5th (17th) June, the second (also 210 beds) at Chát on the 17th (29th) July.§ It was proposed to open the third, section at Bámi; but owing to the rapid retreat of the force, it was never used at all. A field dispensary for the force was also formed and sent to Trans-Caspia. Until the section was opened at Chikishliár, the sick were treated in the regimental hospitals, which thus temporarily became medical establishments.

On the arrival of General Tergukásoff in the country, both sections of the Akhál-Tekke hospital were turned into two independent temporary field hospitals of the first class, each with 210 beds and with a special reserve of small stores for 200 more beds. At the same time, on account of the difficulty of transporting the sick from Duz-Olum to Chát, an infirmary with 36 beds was opened by the 1st Battalion Apsheon Regiment on the 22nd October (3rd November) 1879. To this infirmary, besides the usual rations, 25 *kopecks* per patient were allowed daily. In May 1880, the Duz-Olum infirmary was closed and the Chát hospital moved up to Duz-Olum.

* Report from the Principal Medical Officer of the Caucasus to the Commander of the Army of the Caucasus, No. 5978, dated 26th April (8th May) 1880.—*Author*.

† We shall see further on that this latter preparation was not carried out, as $\frac{1}{2}$ of the whole store of quinine was taken in the sulphate form.—*Author*.

‡ Sanitary Report of the Akhál-Tekke Expedition, 1879-81, page 76.—*Author*.

§ Notwithstanding that they were 170 *vershs* (113 $\frac{1}{2}$ miles) apart, they had only one superintendent, which caused much inconvenience.—*Author*.

For the Expedition of 1880, in addition to the two temporary field hospitals already in the country, it was decided to form three others [two by the 1st (13th) July and one by the 1st (13th) September] 1880, each being divisible into sections, and each with beds for 5 officers and 100 men.

To make the administration uniform, the five hospitals were numbered consecutively, those at Chikishliár and Duz-Olum being numbered 1 and 2, the others Nos. 3, 4, and 5.

To ensure the regular removal of the sick and wounded from Trans-Caspia by two lines, it was resolved to keep two of these five hospitals permanently on the east coast of the Caspian, one at Chikishliár (already there), and the other at Krásnovodsk or Micháelovsk, as the Commander of the Expedition saw fit, with 200 beds each. The remaining temporary field hospitals, *i.e.*, that at Duz-Olum, and two of the newly formed ones were to be so disposed along the lines that they might form regular halting stations for the sick convoys and contain supplies and accommodation for such sick from those convoys as could not continue their journey.

To receive sick on the west coast of the Caspian sea, it was proposed, in case of necessity, to open another temporary field hospital (No. 6) in the buildings of the Petrovsk military hospital.

As in the hospitals of the 1st class the establishment was only 1 superintendent, 1 commissary, and 1 book-keeper, which was evidently insufficient if the hospital were divided into two sections, these establishments were increased as will be mentioned further on.*

As regards the camp equipage of the field hospitals, it was considered more in conformity with climatic conditions to have *kibitkas* rather than tents. Huts had been built in 1879 for the Chikishliár hospital. Considering that in the projected expedition the troops would have to pass the winter on the east coast of the Caspian, and that the removal of the sick and wounded would be attended by great difficulties, it was decided that, as it was probable that there would be a great accumulation of sick at Krásnovodsk or Micháelovsk, huts should be constructed at one or other of those places.

As regards the medical *personnel* of the temporary field hospitals, it was resolved to appoint to each hospital, in addition to the usual number of surgeons attached to each 1st class hospital, one extra junior surgeon to take the place of any surgeon who fell sick or to be available to accompany convoys. This measure was very necessary, as the surgeons belonging to the force in Trans-Caspia in 1879 frequently fell ill, and, as few medical officers could be spared from the Caucasus, it was difficult to replace them.

The experience of the Expedition of 1879 had shewn that, as no transport for the removal of the sick and wounded was attached to the medical establishments, great difficulty was experienced not only in the transport of the sick in proper carriages, but in their being evacuated in proper time, as it was not always possible to make transport, which was used for other services, available. It was therefore considered necessary to attach 20 carts to each of the hospitals Nos. 3, 4, and 5 as sick transport, on the supposition that none of them would have more than 40 sick on the road at a time. On the sick arriving at the hospitals on the coast they were not to be kept there but sent as soon as possible to the Caucasus.

* Report from the Inspector of Hospitals in the Caucasus Circle, No. 3466, dated 21st May (2nd June) 1880. It was afterwards resolved not to open No. 6 hospital, but to increase the establishment of the hospital of the Baku Local Battalion to 180 beds.—Telegram from General Razumikhin, No. 432, dated 8th (20th) February 1881.—*Author*.

As among the sick who would have to be transported to the west coast there would be a considerable number of convalescents who, although much weakened and exhausted by severe illness, would not require hospital treatment, but only improved food and rest under better climatic conditions till their strength was re-established, it was considered necessary to form at Petrovsk in the summer and autumn of 1880 a sanitarium with 150 beds for this class of patients. To the convalescents was to be issued 1·35 lbs. of meat *per diem* and 3 measures of spirits a week, to be replaced by tea at the discretion of the surgeon.

Following the example of the Expedition of 1879, for the superintendence of the sanitary arrangements among the troops in Trans-Caspia, there were appointed a Principal Medical Officer with a staff, a Principal Veterinary Surgeon, and an assistant to the latter. The two latter were appointed because in the cavalry and artillery sent to Trans-Caspia there were no veterinary surgeons, while such were extremely necessary to give aid to horses and camels who fell sick and to indicate measures for the prevention of an outbreak of epizooty, as also to inspect the slaughter-cattle issued to the troops.

For the supply to the troops and medical establishments of medicines, disinfectants, apothecaries' stores, bandaging materials, and surgical instruments, and also to relieve the corps of spare medical stores during the campaign, there was formed a field dispensary for the force with a special establishment. As the total weight of medical stores was about 22½ cwt., and it was needless to carry them all about with the force, the dispensary was divided into 2 sections, one of which, with the larger quantity of the stores, remained on the coast, while the other marched with the force to supply the regimental and divisional hospitals.

The establishment of the medical *personnel* of all the troops detailed for the expedition was made up by drawing upon the other corps of the Army of the Caucasus. As regards the temporary field hospitals, the staff of the Principal Medical Officer, the field dispensary and partly also the divisional hospitals, it was perfectly impossible to supply all the *personnel* from the Caucasus on account of the great deficiency of medical officers, apothecaries, veterinary surgeons, and hospital assistants in that district. The experience of 1879 had shewn that with a smaller force, and consequently with a less numerous medical establishment, the Caucasus Medical Administration was not in a position to supply the force with a sufficient *personnel*, and, when it became necessary to replace casualties in Trans-Caspia, it fell itself into great difficulties, as it was forced to leave the troops and medical establishments in the Home district with a *personnel* far below their requirements.

For the establishments enumerated above there were required—

	Surgeons.	Apothecaries.	Veterinary surgeons.	Hospital assistants.
Staff of Principal Medical Officer ...	3	..	2	2
Field dispensary ...	...	2	...	3
6 temporary field hospitals ...	31	12	...	52
Divisional hospitals ...	2	2	...	...
Total ...	36	16	2	57

To complete this establishment, the Central Medical Administration was requested to detail all the 36 surgeons, 16 apothecaries, and 2 veterinary surgeons, with pay at the lowest rate of those laid down for surgeons, apothecaries, and veterinary surgeons by the Order of 17th (29th) April 1859, but with allowances, &c., according to Army Circulars No. 360 of 1876 and No. 45 of

1877. The request was thus formulated because for the duties of Principal Medical Officer, surgeons in charge of hospitals and other functions of an independent character, medical officers from the Caucasus, who were acquainted with the conditions of climate and life in the country and experienced in medical administration, were required.*

On arriving at Chikishliár on the 7th (19th) May, General Skobeleff at once ordered No. 3 temporary field hospital to be sent to Krásnovodsk.† It arrived there on the 3rd (15th) July, and was opened on the 20th August (1st September) in the barracks of the Krásnovodsk Local Battalion, but afterwards, on the 20th December 1880 (1st January 1881), it was transferred to the 9 hut-barracks constructed for it. On this hospital being opened, the hospital of the Krásnovodsk Local Battalion with 50 beds‡ was sent to Micháelovsk, where it was opened on the 31st August (12th September). This hospital, as the expedition proceeded and the railway was pushed on, continued to move up-country. Thus on the 12th (24th) December it was moved to Mulla-Kári, on the 8th (20th) January 1881 to Bala-Ishem, and on the 3rd (15th) May 1881 to Kazánjik, where it remained till the end of the expedition. Before the arrival of the hospital of the Krásnovodsk Local Battalion at Micháelovsk, measures had been taken there for the construction of hut-barracks for No. 5 temporary field hospital. One section of this hospital with 105 beds arrived at Micháelovsk on the 10th (22nd) December, and, on the departure of the hospital of the Krásnovodsk Local Battalion, was opened there on the 12th (24th) idem. The second section remained in reserve at Petrovsk till the end of February 1881, and it was only on the 5th (17th) March that both sections were united at Micháelovsk in view of the evacuation of the sick by the Micháelovsk line §

On half of No. 5 hospital being sent to Micháelovsk, and as in winter the sick would be evacuated exclusively towards Baku, in the end of November 1880 the hospital of the Baku Local Battalion was increased to 130 beds, instead of the No. 6 temporary field hospital being formed, as proposed with 200 beds.||

The following medical establishments were in course of time opened on the Micháelovsk line:—At Balá-Ishem, an infirmary with 20 beds was opened on the 1st (13th) September by the 1st Battalion Shirván Regiment, with the aid of the Red Cross Society. At the end of September this infirmary was moved to Kazánjik along with the staff of the battalion, and, when the general advance on Gok-Tapa took place it was taken with the battalion. At Balá-Ishem, on the departure of the Shirván infirmary, another with 50 beds was open by the 3rd Battalion Apsheron regiment. Linen and metal articles were supplied by the Red Cross Society and wooden articles by No. 4 temporary field hospital. At Mulla-Kári, the 1st Reserve Railway Battalion opened an infirmary with 30 beds in the end of September, linen being furnished by the Red Cross Society, and metal and wooden articles by No. 4 field hospital.¶

On the Atrak line, besides No. 1 temporary field hospital at Chikishliár, a section of No. 2 temporary field hospital at Duz-Olum, and an infirmary with

* Report from the Principal Medical Officer of the Caucasus to the Commander of the Army of the Caucasus, No. 5978, dated 26th April (8th May) 1880.—*Author*.

† Telegram to General Kuzminski, dated 7th (19th) May 1880.—*Author*.

‡ At the beginning of the Expedition of 1880, this hospital was increased to 150 beds.—*Author*.

§ General Order, Trans-Caspian Field Force, No. 103, dated 14th (26th) March 1881. This hospital was closed on the 29th August (10th September) 1881, and replaced by an infirmary with 80 beds.—*Author*.

¶ Sanitary Report on the Akhál-Tekke Expedition, 1879-81.—*Author*.

¶ General Order, Trans-Caspian Field Force, No. 338, dated 24th September (6th October) 1880.—*Author*.

25 beds, opened by the 3rd Battalion Sámur Regiment at Khwája-Kala, there were no other medical establishments existing up to November 1880.

On the 15th (27th) July 1880, a section of No. 2 temporary field hospital (105 beds) was brought up from Duz-Olum and opened at Bámi.

No. 4 temporary field hospital was formed at the same time as No. 3 hospital, and it arrived at Krásnovodsk in the beginning of September. On the 11th (22nd) November it was moved to Mulla-Kari, and there remained for want of transport.* It only arrived at Samurskoye on the 16th (28th) December, having left at Micháelovsk part of its wooden articles (160 small tubs, 120 small tables for men and 5 for officers, 2 apothecaries' cupboards, and 4 officers' beds†). On the 20th December 1880 (1st January 1881) it was opened, as will be mentioned further on.

On receiving reports from the medical establishments of the continual difficulties experienced by them in commencing work in proper time owing to delays in transport, Dr. Remmert, the Inspector of the Medical Department in the Caucasus, went to Trans-Caspia in the end of October 1880 to inspect the medical establishments and the sanitary condition of the troops and to convince himself on the spot of the actual difficulties and suggest means for their removal.‡ During his tour he inspected the existing hospitals at Chikishliár, Duz-Olum, and Krásnovodsk, and found them all in perfect order. The sanitary inspection of the troops at the points between Chikishliár and Bámi shewed that the summer heats and other unfavourable conditions had had no specially bad effect on the force as had been remarked in the previous year. "As at the inspection of the rations and other food-supplies," remarks Remmert in his report, "I found everything perfectly fresh and in sufficient quantity, and on being asked the men said that they were not able to eat all that was given to them. The small amount of sickness I found among the troops is a new proof of the dictum long ago laid down by science that with food, made as good as possible, the constitution is strengthened and hardened against all causes of illness. It was only at the most advanced points, beginning with Khwája-Kala, that I found cases of scurvy, and this disease was widely spread among the garrison of Bámi." The causes of this disease, remarks Remmert further on, were insufficient or bad food, the excessive exertions demanded by the heavy duty to be performed by such a small garrison, the guard-duty by night, and the great physical exhaustion caused by moving huge packages of supplies, which work fell heavier on the troops at Bámi than on those at any other station.§ On consultation with Remmert, the Commander of the Expedition considered it necessary to increase the number of beds, in the temporary field hospitals at Bámi and Chikishliár, viz., the section of No. 2 hospital at Bámi to 10 officers and 200 soldiers' beds, its name being at the same time changed to the Taman Hospital, and No. 1 hospital at Chikishliár, by means of its reserve stores, to 300 beds. After this, the section of No. 2 hospital at Duz-Olum with 100 beds was named the Duz-Olum Temporary Half Field Hospital.||

* Its stores weighed 1,440 cwt.—*Author*.

† Report of the Superintendent of No. 4 Hospital, No. 384, dated 10th (22nd) December 1880.—*Author*.

‡ The Commander of the Expedition telegraphed to Tiflis on the 14th (26th) August: "It would be very useful if an experienced and enlightened medical officer were sent to inspect both lines and the advanced force, as those who have long served here have had their feelings deadened"—Telegram No. 4674.—*Author*.

§ Sanitary Report, pages 100-102.—*Author*.

|| General Order, Trans-Caspian Field Force, No. 557, dated 24th December 1880 (5th January 1881).—*Author*.

Besides this, and by Dr. Remmert's advice, the Temporary Commander of the Troops formed a new infirmary with 50 beds at Yágli-Olum and increased that at Khwája-Kala to 50 beds by means of stores furnished by the Red Cross Society. The Yágli-Olum infirmary was entirely established by the Red Cross Society, some stores being afterwards sent up from the Chikishliár reserve, and all arrangements being made by Shtsherbák, the consulting surgeon of the Red Cross Society. At the same time, the Atrak line was completed as regards its medical arrangements by rest-camps being established at Társakán, Chát, and Karája-Bátir from the resources of the Red Cross Society. All this was done with a view to the approaching removal of sick and wounded from before Gok-Tapa.

At the same time infirmaries of 50 beds each were established and opened on the Micháelovsk line, at Kizil-Arvát, and Kazánjik, the stores being principally supplied by the Red Cross Society, but partly from those taken from the corps of the 21st Division and the 5th Orenburg Cossacks.* By the 1st (13th) January 1881 the following were the principal medical arrangements.

There were two lines, the Atrak line, destined chiefly for the removal of the sick, and the Micháelovsk line, by which the advance of the troops and the transport to the front of artillery and Intendance stores landed at Micháelovsk from Astrakhán and Petrovsk took place. On the first line, beginning from the coast, there were—

- (1) a hut-barrack hospital at Chikishliár with 300 beds and stores, which had been heavily drawn upon already, however, for 200 more beds;
- (2) a regimental hospital and a rest-camp at the wells of Karája-Bátir;
- (3) an infirmary with 50 beds at Yágli-Olum;
- (4) a regimental hospital and a rest-camp at Chát;
- (5) the Duz-Olum half-hospital with 100 beds and a reserve of stores for 50 more beds;
- (6) a regimental hospital at Társakán;
- (7) an infirmary with 50 beds at Khwája-Kala;
- (8) a section of No. 2 hospital at Bámi in *kibitkas* and tents, with 200 beds.

Returning thence by the Micháelovsk line to the sea, we find—

- (9) an infirmary with 50 beds at Kizil-Arvát;
- (10) an infirmary with 50 beds at Kazánjik;
- (11) an infirmary with 30 beds at Bála-Ishem;
- (12) a section of No. 5 hospital with 100 beds at Micháelovsk, partly in hut-barracks, partly in tents;
- (13) the Krásnovodsk hospital with 300 beds in hut-barracks.

On the west coast of the Caspian—

- (14) the Petrovsk hospital, with a section of No. 5 temporary field hospital with 100 beds;
- (15) the increased hospital at Baku with 130 beds.†

The total number of beds, omitting the regimental and divisional hospitals in the medical establishments of Trans-Caspia was therefore 1,300 or one bed for every 8 men of the force.

* Sanitary Report, page 104.—*Author.*

† See map of the distribution of the hospitals with the Akhál-Tekke Expeditionary Force on the 1st (13th) January 1881.—*Author.*

20 24 28

MEDICAL ESTABLISHMENTS

OF THE

AKHAL TEKKE
EXPEDITION,

1ST JANUARY 1881.

SCALE:

1 Inch = 100 Miles.

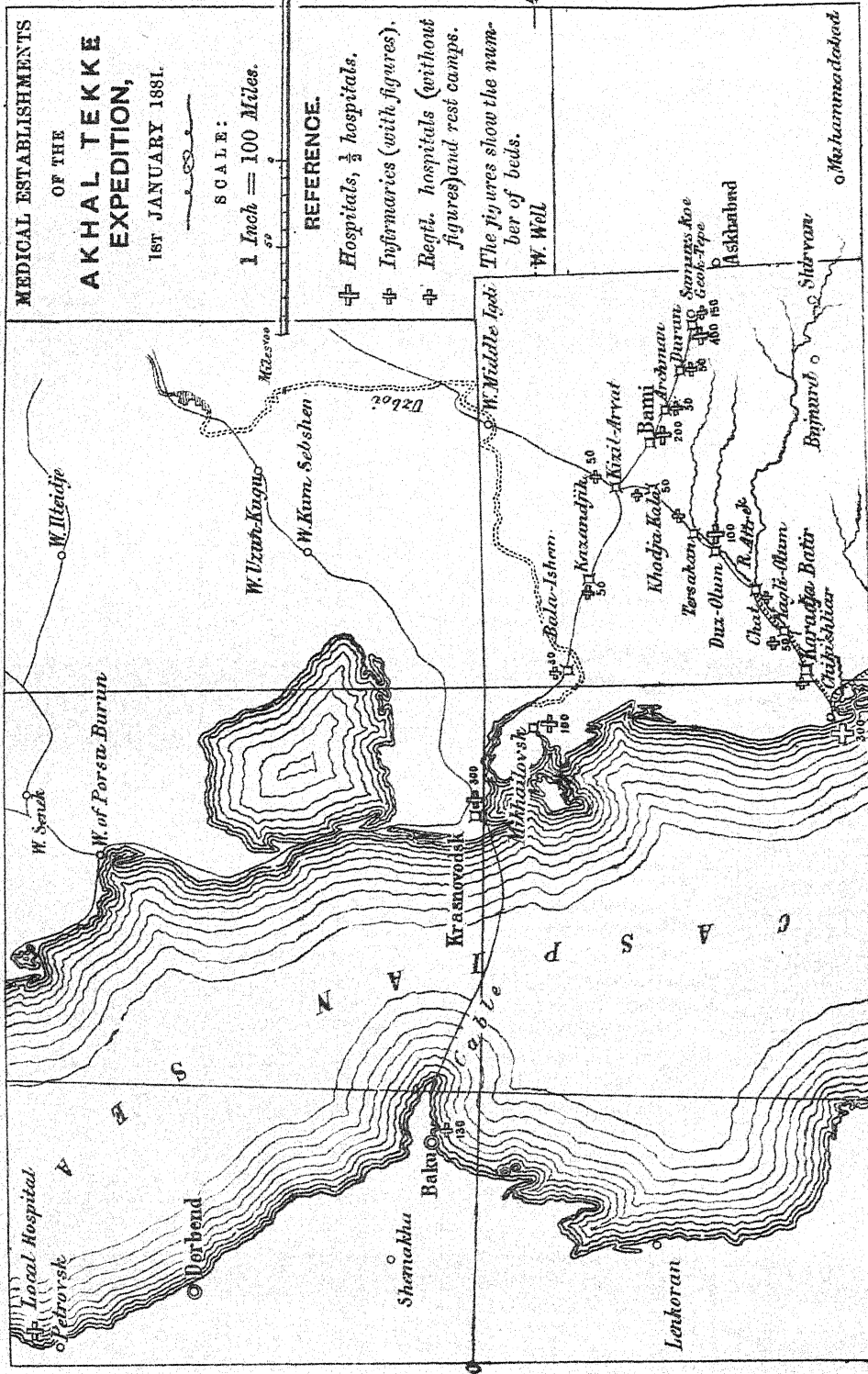
100 Miles

REFERENCE.

- ⊕ Hospitals, $\frac{1}{2}$ hospitals.
- ⊕ Infirmaries (with figures).
- ⊕ Regtl. hospitals (without figures) and rest camps.

The figures show the number of beds.

W. Well



Mohammedabad



EXAMINER

7/11/1951

1000

1000

1000

1000

1000

1000

1000

1000

By the end of November there had been collected at Bámi a sufficient stock of provisions, and all the artillery destined for the siege of Gok-Tapa, and therefore General Skobelev resolved to advance to Yegyán-Bátir-Kala. The field hospitals were at this time far from ready, as the mobile hospital of the 21st Division had only arrived at Micháelovsk in the end of November, and in hastening up to Bámi to join the force it had been unable, owing to want of transport, to bring with it more than its linen and small stores and its dispensary, the wooden articles and even the tents having been left on the way. Much the same thing happened to No. 4 hospital, whose ponderous stores had been distributed among the hospitals on the way, while the mobile hospital of the 19th division never reached Gok-Tapa at all. These circumstances, which were in the main attributable to the want of transport and also to the preference given by those superintending the transport to the private stores of the Red Cross Society over those belonging to Government, were the cause of the activity of the Red Cross officials seeming at this time to throw into the shade the work done by the military medical officers.

The hospital of the 1st Battalion Sámur Regiment was opened at Bámi immediately after the occupation of that place on the 10th (22nd) June. From Bámi it was moved up with the advance force to Sámurskoye, and from the 4th (16th) to the 20th December 1880 (1st January 1881) it was the only medical establishment with the force. On the arrival of the Red Cross hospital at Sámurskoye the Sámur hospital was united with it, and the hospital thus formed was termed the Combined Hospital of the Red Cross and the Sámur Regiment. This infirmary, which had 150 beds, was supplied from the dispensary of the mobile hospital of the 21st division. The surgeon in charge was Dr. Shtsherbak, but the *personnel* under him was military. Rations were issued to this hospital by Government and the money allowance was doubled, *i.e.*, instead of 25 *kopecks* per patient and *per diem*, as in the other infirmaries, 50 *kopecks* were paid. On the day of the assault of Gok-Tapa, the combined hospital and also the mobile hospital of the 21st division were moved up close to the ramparts of the fortress and gave first aid to the wounded, furnishing them also with wine and food. In its double position of a civil and military hospital, the combined hospital did not work without friction, as will be mentioned further on, and on the 4th (16th) February it was closed.

The mobile hospital of the 21st Division only arrived before Gok-Tapa on the 22nd December 1880 (3rd January 1881) with its linen and small stores and beds for 2 officers and 40 soldiers, but without wooden or iron articles, tents, or carts for the wounded. It could therefore only be utilized along with its *personnel* as a drawing station.* In the sorties of the 28th and 30th December 1880 (3rd and 11th January 1881) it was in great danger of being cut up. On the 31st December 1880 (12th January 1881) tents and *kibitkas* were issued to it from No. 4 temporary field hospital, and it became a camp hospital for the force. About this time also its dispensary came up and also the bandaging stores of the mobile hospital of the 19th division, with which it established a dressing station in the advanced trenches. Between the 1st (13th) and 12th (24th) January a large number of wounded were dressed at this station and two surgeons belonging to it were wounded. On the 15th (27th) January, the mobile hospital of the 21st division advanced to Askhábad,

* Diary of the II Section of the Staff, Trans-Caspian Field Force, 1880, No. 34, page 61.—*Author*.

where it afforded assistance to the sick till the arrival of the Askhábád Half-Hospital, upon which it was closed.

On the advance to Yegyán-Bátir-Kala, Durun had been occupied by a garrison of the Crimean Regiment, and in it an infirmary with 50 beds was opened by the Red Cross Society. From the 18th (30th) December 1880 to the 10th (22nd) February 1881, this infirmary was supplied with rations cooked by the garrison, and therefore the sick in it had neither soup, gruel, tea, nor sugar. On the 10th (22nd) February in consequence of the increased number of sick to be removed, the Durun infirmary was enlarged to 150 beds, the stores for this purpose being supplied from the combined hospital of the Red Cross and Sámur Regiment, which had been closed shortly before. The supplies for the sick were delivered from the local supply-dépôt (provisions and ships' rations). The management of the infirmary, as no military *personnel* was available, was undertaken by the Red Cross Society, which added to the ships' rations preserved meats from its own supplies that it had kept up to this time in its own magazines. Attendants were detailed from the troops stationed at Durun (at the rate of 1 attendant to every 8 sick).*

On the 16th (28th) December, No. 4 temporary field hospital with 400 beds arrived at Yegyán-Bátir-Kala, and on the 20th December 1880 (1st January 1881) it commenced operations,† taking over 60 sick from the combined hospital of the Red Cross and Sámur Regiment. All the sick and wounded were received into this hospital on the day of the assault, and on that day it detached 2 surgeons, 4 hospital assistants, and 40 hospital orderlies to accompany the storming columns. On the 1st (13th) February, part of this hospital with 100 beds was moved up to Gok-Tapa, and on the 18th (30th) the whole hospital was moved to this fortress. When troops were pushed on from Gok-Tapa to Askhábád, No. 4 hospital was broken up and two half-hospitals were opened; that of Gok-Tapa on the 9th (21st) March, and that of Askhábád on the 19th (31st) March, each with 100 beds and reserve stores for 50 more. Hospital stores were supplied to each from No. 4 hospital, which had been closed and the Askhábád half-hospital also received linen from the Red Cross Society. Attendants were detailed for the Gok-Tapa half-hospital from the former No. 4 hospital, and for that at Askhábád from the Shirván Regiment.‡

The mobile hospital of the 19th division was moved up towards Bámi, but remained at Kizil-Arvát through a misunderstanding. Its field dispensary, which had arrived sooner, was utilized by the mobile hospital of the 21st division. On the route for the removal of the sick being transferred to the Micháelovsk line, this hospital was placed at the disposal of Prince Shakhovskii, Chief Plenipotentiary of the Red Cross Society and Superintendent of Evacuation, and, after it had been augmented by Red Cross stores, it remained at Kizil-Arvát.§

During the assault of Gok-Tapa, 7 dressing stations were established as follows:—1st, with Colonel Kozelkoff's column under Senior Surgeon Kovalski of the Stávropol Regiment, with Surgeon Milovidoff, Podolski and Benderovski; 2nd, with the same column, under Surgeon Malinovski of the Red Cross Society. Both these stations were at first in the 1st parallel and in the communications to the 2nd parallel, and were afterwards removed up to the rampart of the fortress.

* General Order, Trans-Caspian Field Force, No. 60, dated 6th (18th) February 1881.—*Author*.

† No. 26, dated 16th (28th) January 1881.—*Author*.

‡ No. 96, dated 9th (21st) March 1881.—*Author*.

§ Telegram from Colonel Ivánoff, No. 272, dated 30th January (11th) February 1881.—*Author*.

With the right storming column under Colonel Kuropátkin in the Grand Duke's Kala was the 3rd dressing station from the combined hospital under Dr. Shtsherbak of the Red Cross Society, with Army Surgeons Volkoff and Shultz. In rear of this column followed two more dressing stations, the 4th formed by the mobile hospital of the 21st division with Surgeons Zommer, Kapatsinski, Gusakoff, and Aunovski, and the 5th from the combined hospital of the Red Cross and the Sámur Regiment with Surgeons Slaijanovski and Treiberg. With the left column, under Colonel Haidaroff, was the 6th dressing station, established first at Opornoye and later on, in the Mill Kala, with Surgeons Tsvibák and Vereshthágin. Lastly, the 7th dressing station was with the general reserve and was under Surgeons Nesterovski, Venyaminoff, Sorokin, and Sukhacheff. This station received during the action the wounded both from Colonel Kozelkoff's and Colonel Haideroff's columns.

All other medical officers belonging to the corps remained during the assault close to the dressing station nearest their corps and helped with the dressing. Hospital assistants and bearers at all the stations were taken partly from the troops and partly from No. 4 field hospital and the combined and mobile hospitals. After the capture of the fortress, the two latter hospitals were moved close up to its ramparts.

During the assault of the 12th (24th) January 1881, aid was afforded at the dressing stations to 254 wounded and 85 contused men, including 28 officers.

On the organization of the Akhál-Tekke hospital in 1879, it was given the establishment of permanent hospitals with a few modifications made so that, when the hospital was divided, its sections should possess a certain autonomy and be able to act independently of one another. The changes made in the establishment of a 1st class hospital with 210 beds, with a view to dividing it into two sections, were however actually reduced to giving it two commissaries instead of one. Thus the establishment of the administrative branch* of a hospital in the Expedition of 1880-81 was as follows :—

Surgeon in charge	...	...	...	...	1
Superintendent	...	...	...	...	1
Commissaries	...	...	...	...	2
Book-keeper	...	...	...	...	1
Clerk	...	...	...	...	1
Chaplain	...	...	...	...	1
Church servant	...	...	...	...	1
Writers	...	...	...	...	8
Non-Commissioned Hospital Orderlies	...	...	...	...	9
Rank and File Hospital Orderlies	...	...	...	...	71
Rank and File Artificers	...	...	...	...	10
Non-Commissioned Officers of Transport	...	...	...	...	2
Privates of Transport	...	...	...	...	20

Hospitals Nos. 2 and 3 received their orderlies from the local troops in Trans-Caspia and also from the men of the active troops of the force who were not considered perfectly fit for field service. Senior non-commissioned officers were only detailed for the higher appointments, while for the lower posts junior non-commissioned officers were appointed from among those privates who could read and write, and who were of exemplary character.

* In Appendix No. 34 to Chapter III, Vol. I, see Report on the State of the Temporary Field Hospitals.—*Author.*

The orderlies, &c., for hospitals Nos. 4 and 5 were detailed from the local troops of the Daghistán district and from the corps of the 21st Division, and those for No. 1 hospital came from the former Akhál-Tekke hospital. The drafts required in ordinary course to keep all these establishments up to strength were ordered by the Commander-in-Chief of the Army of the Caucasus to be detailed from all the corps in Trans-Caspia.*

In 1879 there were with the expeditionary force 37 surgeons, 5 apothecaries, and 50 hospital assistants. All these were detailed from the troops of the Army of the Caucasus, which caused great inconvenience, as these troops were thus left with very reduced medical establishments, and this was all the more felt as the number of surgeons on the reserve list did not permit of the losses in the medical staff of the force being made good.

For this reason, on the recommendation of the Principal Military Medical Officer† an Imperial order was given on the 22nd July (3rd August) 1880 for 37 surgeons, 5 apothecaries, and 50 hospital assistants to be detailed from all the military districts of the Empire to take over the junior posts in the Expeditionary Force. The Army of the Caucasus furnished 6 surgeons, 6 apothecaries, and 29 hospital assistants to take over the more important duties, and with Colonel Kuropátkin's column from Turkistán came 2 surgeons and 4 hospital assistants.

Thus at the end of 1880 there were in all 44 surgeons, 16 apothecaries and 84 hospital assistants with the force. All this *personnel* remained in the country till the end of the Expedition, but on the 1st (13th) July 1881 there were in the Akhál-Tekke *oasis* only the following :—

		From the provinces of European Russia.	From the Caucasus.	Total.
Surgeons	...	20	6	26
Apothecaries	...	4	1	5
Hospital Assistants...	...	40	34	74

General Skobelev, who in June 1880 was much concerned about securing a sufficient medical *personnel* for his troops, expressed the opinion that there should be at least 1 medical officer to 1,000 men, and pointed out that during the Abyssinian Expedition there were for every 800 men, 1 surgeon-major, 2 surgeons, 1 hospital sergeant, and 1 hospital orderly. "We shall not be able to attain this," he wrote, "but we should do all we can to provide against the approaching difficulties."‡

The prediction of the General was for once not fulfilled, and with the force in the beginning of 1881 there was 1 surgeon to 356 men of the nominal strength, 1 apothecary to 1,325 men, and 1 hospital assistant to 180 men.§

To these figures must be added the medical *personnel* of the Red Cross Society, among whom there were 2 surgeons in the quality of agents.

* Memorandum from the Staff of the Circle, No. 2932, dated 13th (25th) July 1880.—*Author*.

† Report from the Principal Military Medical Officer, No. 5978, dated 28th April (10th May) 1880.—*Author*.

‡ Diary of the Staff, No. 20, pages 5 to 7.—*Author*.

§ This gave for every 800 men—

Surgeons	...	...	...	...	2.3
Apothecaries	...	...	...	...	0.6
Hospital Assistants	...	...	...	...	4.4
Total	...	...	...	...	7.3 men.

The temporary establishment of the hospitals approved of by the Commander-in-Chief of the Army of the Caucasus in April 1880 served as a basis for the distribution of this medical *personnel*. Each hospital with 210 beds was to have*—

			<i>Roubles.</i>	<i>Kopecks.</i>
Surgeon in charge	1	with pay and allowances of	... 1,919	40
Senior Surgeon	1	" "	... 1,450	20
Junior "	3	" "	... 994	30
Apothecary	1	" "	... 1,411	20
Compounder	1	" "	... 974	80
Senior Hospital Assistants	3	" "	... 90	0
Junior " "	5	" "	... 54	0

All the medical arrangements of the force were superintended by the Principal Medical Officer, Dr. Heifelder, the staff of the Medical Department being constituted as follows:—

			<i>Roubles.</i>	<i>Kopecks.</i>
Principal Medical Officer	1	with pay and allowances	... 2,709	60
Surgeon on the Staff	1	" "	... 1,919	40
Secretary (Surgeon)	1	" "	... 1,450	20
Senior Hospital Assistant	1	" "	... 90	0
Junior " "	1	" "	... 54	0
Principal Veterinary Surgeon	1	" "	... 1,919	40
Assistant to " "	1	" "	... 994	80

The establishment of the field dispensary was—

Apothecary in charge	1	with pay and allowances	... 1,411	20
Assistant to " "	1	" "	... 994	80
Senior Hospital Assistant	1	" "	... 40	0
Junior " "	1	" "	... 54	0
Senior Non-Commissioned Officer	1	" "	... 20	0
Junior " "	1	" "	... 7	0
Privates as fatigue men	4	" "	... 5	0

Finally each of the Mobile Divisional Hospitals with 40 beds had the following *personnel*:—

(1) *Medical Branch*—

Senior Surgeon	...	...	...	...	1
Junior "	...	...	...	...	1
Apothecary	...	...	...	...	1
Hospital Assistants...	...	...	...	...	5

(2) *Administrative Branch*—

Officer in charge	...	...	...	...	1
Junior clerk	...	...	...	...	1
Artificers	...	...	...	...	4
Non-Commissioned Officer in charge of stores	...	...	...	...	1
Hospital orderlies	...	...	...	...	12†

* In Appendix No. 34 to Chapter III, Vol. I, see Return of the Temporary Field Hospitals in Trans-Caspia.—*Author*.

† See Appendix No. 34 (Chapter III), Vol. I.—*Author*.

In 1880 there were in all 18 Sisters of Mercy distributed among the medical establishments as follows :—

No. 3 Field Hospital	...	...	...	5, afterwards 3.
No. 5	„	...	...	3
Taman	„	...	...	4
Duz-Olum Half-Hospital	...	...	...	2
Bála-Ishem Infirmary	...	...	...	3
Combined Hospital	...	...	...	3

The last three were, on the closing of this hospital, transferred to the Durun infirmary.

The total number of men belonging to the hospital and infirmary detachments who were admitted to hospital for sickness or wounds or who died in the Expedition of 1879-81 was as follows :—

Admitted sick,	825 men ; discharged cured, 750 ; died, 50 men.
26 „ wounded,	2 „ 2
26 men remained in hospital on the 1st (13th) July 1881.	

Turning now to the methods for the supply of the field hospitals and infirmaries, it may at once be said that all efforts to reduce that supply to a system failed. Only two hospitals, those at Chikishliár and Krásnovodsk, had contractors of their own, and the remainder were supplied by hospital committees composed of the surgeon in charge as president, and the superintendent and a surgeon as members. The decisions of these committees were made in the form of daily proceedings, and not unfrequently were submitted to the Commander of the Expedition for confirmation. Still the Caucasus Intendence had made great exertions at the beginning of the campaign to find general contractors for the hospitals. These exertions were, however, not crowned with success, and the hospital committees were usually forced to apply for meat to the contractor for the troops, and for flour, ships' rations, and the so-called extra supplies, as laid down by the district medical administration on the 27th May (5th June) 1880, to the Intendence supply-depôts. With this system, constant difficulties were experienced in supplying firewood, and especially lighting materials, to the hospitals. The infirmaries were not unfrequently supplied by the troops and received 25 *kopecks* a day for each patient as extra allowance.*

To better explain the difficulties experienced by the hospital committees, we shall give here the history of the attempts made by those of the Chát and Bámi hospitals to obtain a contractor in 1880.

In 1879, when the Akhál-Tekke hospital was formed, the Intendence applied to Karganoff, who already had a contract for the supply of meat and forage for the Expeditionary Force, to undertake the supply of the hospital also. In making this proposal, the Intendence thought that, as Karganoff had already a transport train of horsed *arabas*, it would be easier for him than for any one else to fulfil this new obligation. From the first day, however, of his undertaking this duty, the contractor began to demand various privileges, such as permission to draw from the supply-depôts various articles of hospital issue, and even after this was permitted, he refused to carry on the work. After this failure, a hospital committee undertook the issue itself, and

* Except the combined hospital of the Red Cross Society and Sámur Regiment at Gok-Tapa, which received 50 *kopecks* a day per patient.—*Author*.

engaged contractors; first of all Gusakoff and afterwards Khublaroff, who supplied the hospital, but at very high prices.

On the 28th December 1879 (9th January 1880) Khublaroff offered to reduce the prices for hospital stores previously charged by him, but on condition of being given the contract for the whole of 1880.* His prices were—

			<i>Roubles.</i>	<i>Kopecks.</i>
Per pud of fresh bread	...	...	5	0
" " " wheat flour	...	...	2	70
" " " pearl barley	...	...	10	0
" " " fresh stearine	...	...	15	0
" vedro of milk (2·7 gallons)	...	...	8	0
" " " kváss	...	...	3	0
" " " vinegar	...	...	4	0
" " " spirits at 80°	...	...	16	0
One hundred eggs	...	...	5	0
" lemon	...	...	0	15
" sájen (7 feet) of 3 billet firewood	...	...	235	0
&c.,	&c.,	&c.†		

As the resources of the expedition were being increased, the Intendence did not think proper to accept Khublaroff's offer, since it expected that many competitors would appear for the contract, and that the prices would be considerably reduced. It, however, ordered the Chát hospital committee to bind Khublaroff to continue the supply at the previous (although higher) prices till the appearance of a new contractor, and, in addition, on the 11th (23rd) February 1880 it was considered necessary, according to regulation, to demand from Khublaroff a deposit of 19,347 *roubles*.

In the meantime, on the 28th January (7th February) 1880, Khublaroff, in consequence of changed circumstances and of some of his agents having failed, retracted his former terms and would only offer a reduction of 1 *per cent.* on his prices, if the contract were given to him for the whole year, and this reduction was not to be made on all articles. On the 14th (26th) February he further stated that, as he received the greater proportion of his supplies from Persia, he would require that the whole payment be made in gold or silver money, and to the demand for a deposit he replied that as security for a year's supply he would give 2,000 *roubles*, and that he could give no more.‡

At the end of February 1880, the Military Council of the Caucasus decided that the supply of the Chát hospital for 1880 was to be provided for by a committee through a trustworthy official, to be chosen by the Intendence of the force. General Murávieff, the Commandant of the Atrak line at that time, entrusted the supply of the hospital to the merchant Teroganoff, who named prices 7 *per cent.* lower than those of Gusakoff.§ Teroganoff also consented to continue the supply of the hospital after its transfer to Duz-Olum, and the Caucasus Intendence approved of his prices; but when asked to confirm the contract, it gave no reply.

* Report from the Chát Temporary Field Hospital, No. 248, dated 30th December 1879 (11th January 1880).—*Author*.

† Diary of the Staff of the Trans-Caspian Field Force, No. 12 of 1880, pages 12 to 14.—*Author*.

‡ Diary of the Staff of the Trans-Caspian Field Force, 1880, No. 12, pages 60 to 63.—*Author*.

§ Report from the Intendant of the Staff of the Trans-Caspian Field Force, No. 1168, dated 15th (27th) March 1880.—*Author*.

In the meantime on the 10th (22nd) of April, the former contractor, Khublaroff, who had been bound to supply the hospital, complained of the losses caused to him by his temporary but obligatory position in the matter of the supply of the Chát hospital, and requested that a date might be fixed for the termination of this contract. He at the same time requested that, if the hospital were moved to Duz-Olum, he might be given Government transport, for 448 cwt. of stores, all the washing appliances, and the Government weighing apparatus. This demand was supported by Colonel Verjbitski, in charge of the hospital, as Khublaroff was a man who had served us well.* Thus Khublaroff's contract continued till September,† when the hospital committee took the matter entirely into its own hands.

The Intendence of the force, relying on prices having been lowered, advertised in June for double contracts for the supply of provisions and stores to the section of the hospital at Bámi. For those supplies, the contractor, Melikoff, who already had the supply of the Chikishliár hospital, demanded the following prices :—

Meat	...	...	6 roubles a pud (36·1 lbs.).
White bread	...	7	" 50 kopecks.
Milk	...	13	" 80 " vedro (2·77 gallons).‡
Kváss	...	6	"

The price asked for washing for a year, including firewood and soap, was 4,380 roubles, &c. In addition, the contractor demanded that Government transport should be put at his disposal to carry supplies from Chikishliár and Micháelovsk to Bámi, without his fixing any time for asking for such transport, or specifying the amount he might require.

A second competitor asked 1 rouble per patient *per diem* for washing, i.e., 365 roubles a year; and as he proposed to wash for 30 men, the cost of washing alone in a year would have been 10,950 roubles!

After such sorry results of its advertisements for contracts, the Intendence of the force perceived the impossibility of supplying the hospitals in this way. A special committee assembled at Chikishliár, in which Chief Controller Cherevánski took part, decided that it was impossible to get a contractor to supply the hospitals, as it was evident that the greater proportion of the supplies required could not be obtained either locally or at a greater or less distance from the hospital. The system of a daily money allowance, as in the infirmaries, was also disadvantageous, as in the absence of private stores from which purchases could be made, it was impossible to lay down the allowance which should be made *per diem*, whether stores were issued from the magazines in addition or not. The committee, on the proposal of Chief Controller Cherevánski, determined to adhere to the system of hospital committees, with the following changes and additions :—

- (1) The supplies on the hospital list which are contained in the supply-depôts are to be issued from them, such as rye and wheat flour, buckwheat and rice, groats, tea, sugar, *ghi*, pepper, onions, fruit acids, dried cabbage, spirits, vinegar, oats, and hay.

* Diary of the Staff of the Trans-Caspian Field Force, No. 12 of 1880, pages 113 to 115.—*Author*.

† Report from Artsishevski, No. 1877, dated 27th August (8th September) 1880.—*Author*.

‡ In May 1880 the prices for these articles at the Chát hospital were—

Kváss	...	...	4 roubles 80 kopecks a vedro.
Bread	...	7	" 0 " a pud.
Washing, per man <i>per diem</i>	...	20	"

- (2) Pearl barley, semoule, malt, mint, compressed vegetables, prunes, cranberry extract, horse-radish, and potatoes are to be bought in 4 months' supplies on the west coast of the Caspian by a person of trust (a limit to the prices of such supplies being first fixed), and they are then to be delivered by Government to the hospitals of the force.
- (3) In the same way, sherry, cognac, linseed and olive oil, soap, acetic acid, wadding, wax, writing paper, &c., are to be procured.
- (4) Instead of milk being purchased, 10 cows are to be taken over from the contractor of meat for the army, and Government forage is to be issued to them.
- (5) Firewood and lighting materials are to be supplied by the Intendence.
- (6) Linen is to be washed by the hospital orderlies, soap, soda, birch-tar, &c., being obtained as in sections 2 and 3. Firewood will be delivered by the Intendence, and boilers and tubs are already available from those provided in 1879.
- (7) From the advances made for minor expenses, the hospitals will obtain those articles which are not provided for them, such as lemons, eggs, vegetables, fruit, &c., if the local purchase of these is locally possible.*

In the meantime, the Caucasus Circle Intendence, in making arrangements for the preparation of additional supplies for the hospitals on the basis of the tables newly worked out in Tiflis by a medical committee,† proposed to the Trans-Caspian Intendence to prepare six months' supply, for two temporary field hospitals of 200 beds each, of the following articles:—Dried apples, raisins and apricots 216·6 lbs., best black tea 72·2 lbs., and fruit acids 614·8 lbs.‡ Thus on account of the preparations made at Astrakhán, it was found possible to exclude from the supplies laid down as to be purchased by the Chikishliár Committee compressed vegetables, semoule, potatoes, and cranberry extract.

In carrying out the decisions of the Chikishliár Committee, it appeared that the Intendence of the force could not spare a single man to send to the west coast of the Caspian to purchase the supplies laid down in sections 2 and 3 of the recommendations of the Committee. The Intendence therefore requested Gabaeff, the contractor of No. 1 hospital, to state his prices for these supplies. On comparison with the bazaar prices at Baku as shewn in the price list, the following differences were observed:—

	Bazar prices at Baku.		Gabaeff's prices (without adding 10 per cent.),	
	Roubles.	Kopecks.	Roubles.	Kopecks.
Pearl barley, <i>per pud</i> ...	1	0	6	80
Prunes, <i>per pound</i> ...	0	10	0	18
Kakhetinski wine, <i>per vedro</i>	10	0	13	50
Brandy, <i>per bottle</i>	1	80	3	0

* Report from the Intendence of the Force to General Skobelev, No. 3596, dated 1st (13th) August 1880, in the Diary of the Staff of the Force operating in Trans-Caspia, No. 12 of 1880, pages 222-229.—*Author*.

† At Astrakhán there had been stored compressed vegetables 192 cwt., preserved cabbage for *kvas* 26·88 cwt., preserved vegetables (carrots, sorrel, spinach, cabbage, and turnips) 324·9 lbs., *bouillon* 648 lbs., Swiss milk 32½ lbs., dried estragon and marjoram 108·3 lbs., Martin's cranberry extract 108·3 lbs., spirits at 90° 162 gallons, rusks 960 cwt., sago 3,888 lbs., vermouth 180 bottles, and coffee 43·2 lbs. Of this quantity, 960 cwt. of rusks were sent to Krásnovolsk and the rest to Chikishliár.—Diary of the Staff of the Trans-Caspian Field Force, No. 12 of 1880, page 286.—*Author*.

‡ Instructions from the Caucasus Circle Intendence to the Intendence of the Force, No. 26566, dated 4th (16th) July 1880.—*Author*.

The total prices to be paid for the four articles required would therefore have been—

	<i>Roubles.</i>	<i>Roubles.</i>
Pearl Barley, 25 <i>puds</i> ...	25	170
Prunes, 5 <i>puds</i> ...	20	36
Kakhetinski wine, 10 <i>vedros</i> ...	100	135
Brandy, 100 bottles	180	300
Total ...	325	641

i.e., Gabaeff's prices were in general 97 per cent. higher than those at Baku in addition to which he demanded 10 per cent. commission, which he, consented to receive only upon the articles being delivered at the place required, transport being found by Government. General Skobelev therefore ordered these additional supplies to be got through commission agents, but the prices were not to exceed those of the market plus 10 per cent. for commission or even a little more. He decided that this procedure should be followed for an indefinite period, or until conditions more favourable to Government could be made. The additional supplies were at first ordered by General Skobelev to be got ready for Hospitals Nos. 2, 4, and 5 only,* but afterwards the system was extended to hospitals Nos. 1 and 3, to the regimental hospitals, and to the Mobile hospital of the 19th Division.†

Generally it may be said that the supply of the hospitals was insufficiently organized. The arrangements of the Intendence at Astrakhan were on a small scale; the supplies were delivered on the east coast of the Caspian in very small quantities, and were moved forward very slowly. Thus the Bami hospital reported on the 12th (24th) October 1880 that it had no extra supplies for its patients.‡ The same report was made by No. 4 hospital at Samurskoye.§ The Mobile hospital of the 21st Division asked whence it was to obtain soap for washing the hospital linen.|| In the Bami hospital at one time tallow candles had to be made by the hospital orderlies. In a word, the extra supplies remained in rear. "Until the troops are supplied with the necessary articles, we have no time to think of sago and rusks," ¶ wrote General Skobelev in October, *i.e.*, the neglect of the supply of extra articles to the hospitals arose from want of transport. In February 1881, the Officer Commanding the lines of communication, Colonel Ivánoff, asked for permission to issue those supplies which had not been sent up to the hospitals in rear.** The purchase privately of horse-radish, lemons, &c., was a failure. Thus, for example, the horse-radish obtained by Melikoff to the amount of 50·56 cwt. at a cost of 1,422 *roubles* was delivered quite rotten and was not taken over, and boxes with 10,000 rotten lemons, obtained in Persia and brought to Chát by the Red Cross Society, had to be buried in the ground. The hospital committees and superintendents constantly complained to the Staff that firewood,

* Diary No. 12, pages 235-237, Report from the Intendence to the Commander of the Expedition; No. 30, dated 5th (17th) August 1880.—*Author*.

† Report of the Principal Medical Officer, No. 102, dated 29th August (10th September) 1880.—*Author*.

‡ Report of the Hospital Committee, No. 180, dated 12th (24th) October 1880.—*Author*.

§ Diary of the Staff of the Trans-Caspian Field Force, No. 12 of 1880, pages 459-469.—*Author*.

|| *Ibid.*, page 481.—*Author*.

¶ *Ibid.*, No. 17 of 1880, page 102.—*Author*.

** By General Order No. 136, dated 25th March (6th April) 1881, it was decided that the extra supplies furnished for the field hospitals should be divided among all the infirmaries on the Michailovsk Line. Earlier orders had been given, dated 6th (18th) February 1881, for the infirmary at Durum: G. O. 60, para 11.—*Author*.

lighting materials, white bread, and other articles had not been supplied to them. The meat supplied to the hospitals by the Army contractors was bad and consisted of nothing but bones; and after it was cooked it did not give nearly the proper number of rations, so the Field Control made a report on this matter.*

The result of all these privations was that the cure of the sick and the re-establishment of their health were delayed, and there were even cases of men having been attacked with scurvy while in hospital on account of the want of variety in their food and the absence of fresh vegetables or seasoning.

As for the supply of medicines to the medical establishments in Trans-Caspia, we have already given details on this subject in speaking of Dr. Remmert's dispensary pack-saddles, which, according to his plan, should have marched with the hospitals. We have also mentioned how changes were made in the tables of medicines in which weaker articles were replaced by those of a more active nature, and we have also described in detail the organization of the field dispensary which was to supply any deficiency in the field hospitals. We will here only add that it was proposed to form a reserve of medicines at Petrovsk from which the field dispensary could be replenished.

From all this, it might be concluded that the apothecary arrangements were well organized, but in reality it was not quite so, as the dispensary pack-saddles were the first of which convoys tried to get rid. From the very first day of the advance of the Expeditionary Force, therefore, complaints were heard on one hand of the insufficiency of apothecary's stores on the east coast, and, on the other, of troops asking to be relieved of the extra weight of those stores. We may mention as a case in point that, after the affair of the 23rd June (5th July) in which Dr. Studitski was killed and 5 Cossacks wounded, the surgeon at Khwāja-Kala, to which station the wounded were brought, had no bandaging materials, and those which had belonged to the 3rd Battalion, Sámur Regiment, were all expended.† On the 13th (25th) September, the Principal Medical Officer reported to the Commander of the Expedition that the dispensary handed over to the 3rd Battalion, Apsheron Regiment, did not appear to be new, and that the stores were packed in a box which it was impossible to carry in the desert.‡

The general recurrence of such cases is noticed in the sanitary report of the Inspector of the Medical Department of the Caucasus in which we read as follows: "On arriving at Petrovsk, we were unfortunately convinced of the correctness of the reports made to us of all the medical stores not having yet been despatched to the east coast. Thus we there found the regimental medicine chests all packed and ready, all the medicine chests of the field dispensary, the medicines sent for the latter from Tiflis, the medicine chests for both the divisional hospitals with all their surgical instruments, and all the carts destined for the removal of the sick and wounded. All these were lying on the quay and were awaiting their turn to be despatched, and nobody knew whether they were to be sent to Chikishliár or to Krásnovodsk."§ At this time (in October) great want of certain medicines was felt in the hospitals at Chikishliár and Krásnovodsk, as those at Petrovsk could not be made available.

* Diary of the Staff, No. 12.—*Author*.

† Report of the Khwāja-Kala *clappen* point, No. 14, dated 23rd June (5th July) 1880.—*Author*.

‡ Diary No. 12, page 260.—*Author*.

§ Sanitary Report, page 95.—*Author*.

Although by the middle of November the articles deficient had been supplied to the medical establishments, the field dispensary was never completely formed on the original plan.

In putting together the expenses of apothecary's stores for the medical establishments, we get the following data:—

				<i>Roubles.</i>	<i>Kopecks.</i>
The total cost of apothecary's stores supplied for the force was...				63,233	23 $\frac{1}{4}$
Of these, medicines cost				46,009	3 $\frac{3}{4}$
The principal expenditure was for quinine, which cost—					
317 pounds (285·3 lbs.) in neutral sulphate ...				26,003	51 $\frac{3}{4}$
181 „ (162·9 lbs.) in acid sulphate ...				11,921	22 $\frac{3}{4}$
Total*				37,924	74 $\frac{1}{2}$
Stores and utensils				2,500	51 $\frac{1}{2}$
Bandaging materials				10,232	34
Disinfecting materials				4,491	37
Total ...				63,233	23 $\frac{1}{4}$
Of this, there were used up medicines to the value of ...				24,800	66 $\frac{1}{2}$
Including quinine:—					
179 pounds (161·1 lbs.) neutral sulphate ...				14,686	20 $\frac{3}{4}$
71 „ (63·9 lbs.) acid sulphate ...				4,657	38
Total ...				19,343	58 $\frac{3}{4}$
Stores and intensils				1,606	65
Bandaging materials				7,680	99
Disinfecting materials				3,650	25
Total ...				37,738	56

This left unexpended stores to the value of 25,494 *roubles* 6 $\frac{1}{4}$ *kopecks*, of which 18,581 *roubles* 15 $\frac{3}{4}$ *kopecks* were for quinine, mostly in the field dispensary and its branches.

The hospitals were supplied with all the linen and metal articles laid down in their equipment tables and also with camp equipage for the sick and the *personnel* from the existing stores. Wooden stores and a few metal ones not kept in stock were purchased by the Caucasus Intendance for 27,868 *roubles*.†

In going now into the details of the measures taken to combat sickness among the troops engaged in the conquest of Akhál-Tekke, we shall give the totals of those who fell sick or were wounded or who died during 1880-81. These figures are not consoling, as to the diseases which prevailed in 1879 must be added also typhus, the more severe forms of which attained a great development.

* Making the price of a pound of neutral sulphate 82 *roubles*, of acid sulphate 66 *roubles*.—*Author*.

† In 1879, 5,973 *roubles* were expended on this head.—Report of the operations of the Caucasus Intendance for the supply of the troops in Trans-Caspia in 1879-80.—*Author*.

The general development and amount of sickness is shewn in the following table; the sign + indicates cases which remained over from 1879 or 1880 :—

Diseases.	1880.				1881.				TOTAL.	
	Admitted.	Discharged.	Died.	Remain- ing.	Admitted.	Dis- charged.	Died.	Remain- ing.	Ad- mitted.	Died.
Intermittent fever	5,528 +34	5,369	35	153	2,834 +111	2,757	30	207	8,411	65
Enteric catarrh	3,340 +27	3,123	69	175	1,502 +63	1,341	33	251	4,902	111
Dysentery ...	580 +14	453	75	66	186 +17	100	64	30	766	133
Typhus in all forms ...	160	40	20	31	1,345	1,002	175	168	1,445	195
Scoury ...	593 +78	472	13	191	723 +44	356	25	336	1,321	38
Eye diseases ...	652 +5	628	...	29	237 +15	257	...	45	939	...
Other illnesses	6,436 +143	6,227	38	314	3,464 +198	2,971	68	643	9,920	106
Wounds ...	378 +5	62	21	300	609 +290	641	147	111	987	163
Total	17,612 +396	16,383	271	1,264	11,079 +738	9,434	512	1,841	28,691	813

Of these numbers there belonged to the troops :—

1880	17,234 sick, 378 wounded, of whom 250 sick and 21 wounded died.									
Of these, officers	95	"	9	"	"	4	"	1	"	"
1881	10,470	"	609	"	"	395	"	147	"	"
Of these, officers	483	"	57	"	"	12	"	12	"	"
Total of Expedition	27,704	"	987	"	"	645	"	168	"	"
Of these, officers	578	"	66	"	"	16	"	13	"	"

The remainder were civilians, such as camel-drivers, hired railway workmen, and a few Tekkes.

* In the Expeditions of 1879 and 1880-81, 75 per cent. of the wounds were from firearms, 5 per cent. from cuts with cold steel, 16 per cent. from stabs with cold steel, and 4 per cent. from accidents with rifles or by artillery projectiles. There died 20·64 per cent. of those with gunshot wounds, 19·66 per cent. of those with cuts, 2·85 per cent. of those with stabs, and 1·96 per cent. from accidental wounds.

Of 100 cases of mechanical injuries, wounds of the head (16·55 per cent.) were most frequently met with, then those in the face (10·45 per cent.), right hip (9·35 per cent.), left hip (7·72 per cent.), right shoulder (7·2 per cent.), buttocks (7·15 per cent.), wrist (5·42 per cent.), back (4·08 per cent.), left forearm (3·72 per cent.), left leg (3·32 per cent.), right forearm (3·06 per cent.), belly (2·12 per cent.), foot (2·1 per cent.), neck (1·21 per cent.), right leg (1·1 per cent.) and pelvis (1·06 per cent.).

Of 100 men who died from wounds, most (17·14 per cent.) died from injuries of the chest; then came wounds in the head (15 per cent.), belly (11·42 per cent.), right hip (10 per cent.), left hip and left forearm each (7·86 per cent.), back and left leg each (4·28 per cent.), pelvis and right shoulder each (3·55 per cent.), face, right forearm, and wrist (2·85 per cent.), buttocks and left forearm (2·14 per cent.), and neck and right leg (0·71 per cent.). There were no cases of death from wounds of the foot or wrist. In the treatment of wounds, the conservative practice was almost always followed, and amputations were only undertaken in extreme cases (18 in all), chiefly for serious injuries of the hip.—Sanitary Report on the Akhal-Tekke Expedition, 1879-81, pages 26-29.—*Author*.

From these data it can be seen that of 1,000 men of the nominal strength of the troops, there were admitted to hospital every month—

In 1880, from sickness 166; from wounds 3·69

In 1881, „ „ 176; „ „ 10·43

and there died—

In 1880, from sickness 3·84; from wounds ·1

In 1881 „ „ 5·71; „ „ 2·92*

In going into the details of the amount of sickness each month, it will be noticed that the diseases did not increase in equal ratio and parallel with one another, but that each had its own culminating point after which it fell, as may most easily be seen from the annexed graphic table which shows the monthly amount of sickness from fevers, typhus, dysentery, scurvy, and enteric catarrh, and the *total* amounts of sickness and death for each of the 18 months. If this period of 18 months, over which our data extend, be divided into three half-years, the following instructive figures are arrived at:—

January-June 1880.
1,484 sick (5 deaths).
247 *per* month.

July-December 1880.
4,044 sick (30 deaths).
674 *per* month.

January-June 1881.
2,883 sick (30 deaths).
480·5 *per* month.

Compared with the total amount of sickness, the cases of fevers formed—

In 1880, 31·33 per cent.	|	In 1881, 26 per cent.
Total, 29·3 per cent.		

Of the total number of deaths, those from fevers were—

In 1880, 12·9 per cent.	|	In 1881, 5·54 per cent.
Total, 8 per cent.		

The causes of those fevers in General Skobelev's Expedition and also in that of 1879 were the considerable fluctuations of temperature between day and night and the use of bad water. Besides this, some places of the *oasis*, and particularly Bámi, had a distinctly feverish character. The small amount of mortality and the quick recovery of the greater number of fever-patients show that in general the Tekke fevers are not of a malignant nature.

The sickness from enteric catarrh (disorders of the stomach) reached its *maximum* in August, September, and October 1880, when the number of cases of men falling sick from this disease reached 20 to 22 in a day, and then descended to 350 a month. There was least of this sickness in March and April 1881. Reverting to the above division into three half-yearly periods, we find:—

1st period.
Sick 206, died 5.

2nd period.
Sick 740, died 64.

3rd period.
Sick 1,562, died 33.

Each month there were attacked—

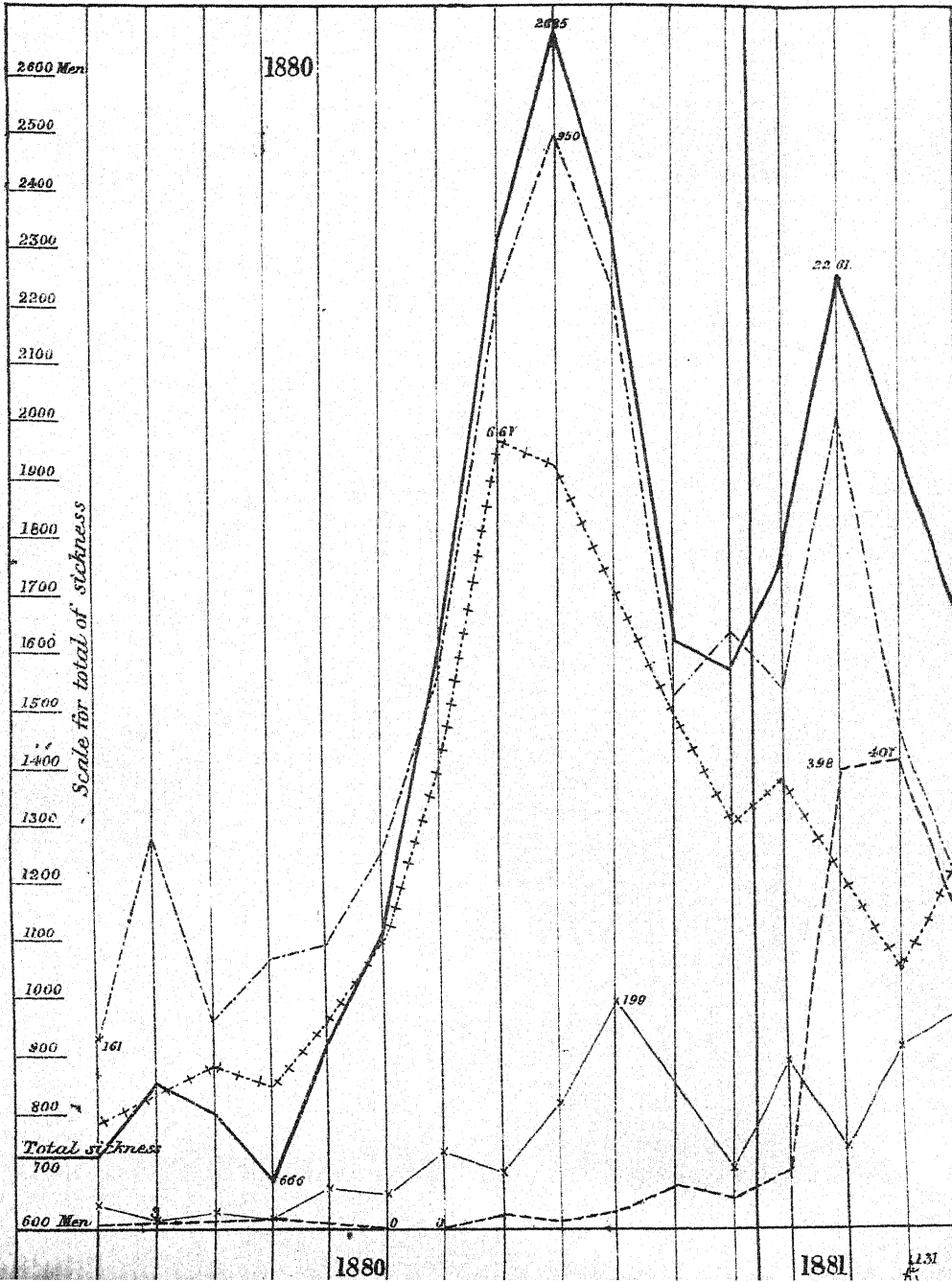
27

123·3

260

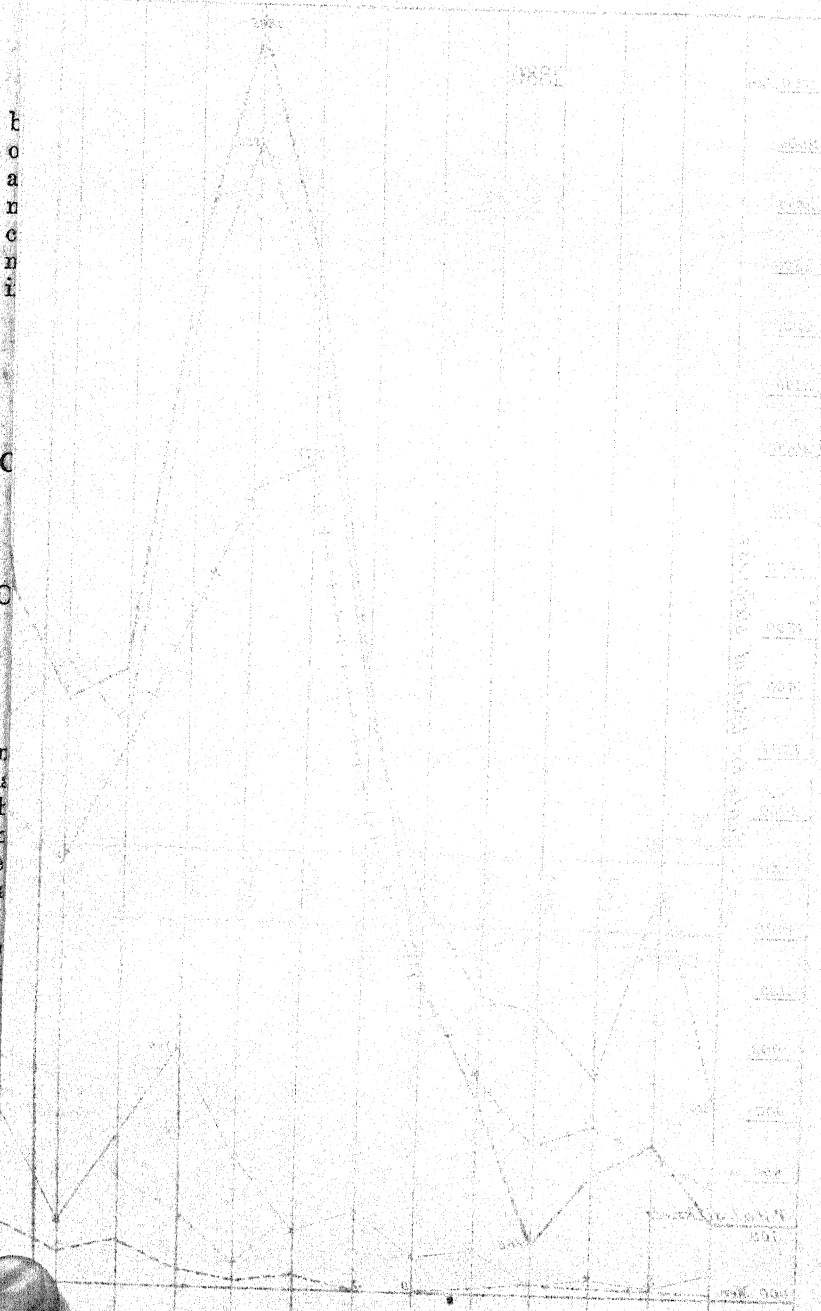
GRAPHIC TABLE

Showing the monthly amounts of sickness and death among the troops



1981

more than 100,000 in 1981



to
o
a
n
c
n
i

C

C

in
da
th
st
fe
na

m
ca
de
A
w

Ea

1980 1981

Of the total number of cases of sickness, those of enteric catarrh formed—

In 1880, 18.9 per cent.	|	In 1881, 14.10 per cent.
Total, 17.08 per cent.		

Of the total number of deaths, there were from enteric catarrh—

In 1880, 25.46 per cent.	|	In 1881, 6.09 per cent.
Total, 12.5 percent.		

The cause of this disease was bad water; for when it was improved, the amount of sickness diminished (the deaths, however, remained the same, 2.1 dying of every 1,000 sick).

Dysentery increased in the same ratio as enteric catarrh and fevers. There were attacked with this disease—

1st period.	2nd period.	3rd period.
79 sick, 5 died.	398 sick, 70 died.	186 sick, 64 died.

Consequently *per month*—

13	66.3	31
----	------	----

The percentage of cases of dysentery compared with other diseases was—

In 1880, 2.35 per cent.	|	In 1881, 1.68 per cent.
Total, 2.07 per cent.		

The percentage of deaths was—

In 1880, 27.7 per cent.	|	In 1881, 11.8 per cent.
Total 17.09 per cent.		

The cause of this disease was the exhaustion of the men after excessively hard work, and sometimes it followed after enteric catarrh on account of the deficiency of good food and especially of good drinking-water.

We have seen above that there was no typhus in 1879, if we do not count the sporadic case of abdominal typhus in August which had a fatal issue. In 1880-81, on the contrary, typhus made considerable ravages and caused a large number of deaths. In 1880 there was not much of it, only 100 men being attacked in all, of whom 21 died; but immediately after the capture of Gok-Tapa, typhus in its various forms was very prevalent and caused us great loss.

The total number of cases were as follows:—

	1st period.		2nd period.		3rd period.		
	Sick.	Died.	Sick.	Died.	Sick.	Died.	
1. Abdominal Typhus ...	0	0	23	10	84	34	Mostly in February.
2. Spotted " ...	0	0	1	1	185	46	
3. Relapsing " ...	0	0	40	2	758	54	
4. Undetermined forms of Typhus ...	15	1	21	7	318	41	Mostly in March.
Total ...	15	1	85	20	1,345	175	

As said above, the disease was most prevalent after the capture of Gok-Tapa, the figures for the three months after that event being as follows:—

		Abdominal Typhus.		Spotted Typhus.		Relapsing Typhus.		Undetermined Forms.		Total.	
		Sick.	Died.	Sick.	Died.	Sick.	Died.	Sick.	Died.	Sick.	Died.
February ...	...	51	3	76	6	132	5	139	13	398	27
March ...	...	3	13	75	20	235	20	94	21	497	74
April ...	...	3	5	33	8	183	15	47	4	266	32
Total ...	...	57	21	184	34	550	40	280	33	1,071	133

Thus of the total number of cases of sickness there were to be ascribed to typhus—

In February 2·96 per cent.	} Total 79·26 per cent. of all cases for the three months and 76 per cent. of all the deaths.
„ March 30·26 per cent.	
„ April 19·40 per cent.	

Compared with all the other diseases, typhoids constituted 5·04 per cent., being in 1880 0·56 per cent. and in 1881 12·14 per cent.

	1880.	1881.
Of these, belonged to abdominal typhus	·12 %	·75 %
Spotted typhus ...	·06 %	1·56 %
Relapsing typhus ...	·22 %	6·85 %
Typhus in undetermined forms ..	·26 %	2·98 %

In 1880 typhus caused 7·30 % of all the deaths in the Force.

In 1881 typhus caused 32·28 % of all the deaths in the Force.

These figures show indisputably that typhus must have been caused by direct infection from the putrifying corpses of men and animal, and that this disease can best be combated by means of disinfectants. Of this we can give an instructive example. In one company of the Stávropol Regiment, the commander of which demanded the strictest cleanliness from his men, forbade them to use the clothes of the natives, and took care that they ate only out of the company cooking utensils, there was not a single case of typhus, although the company was stationed inside Dangil-Tapa itself, the most infected place.

On the return of the troops from Gok-Tapa, typhus made its appearance along all the lines, but most of all at Bámi, where the 4th Battalion Apsheron Regiment halted for an unusually long time on its march down-country. This battalion had previously suffered severely from this disease; and after a strict disinfection of all its clothing, kits, &c., it was taken to Khwája-Kala, where it was kept for two weeks under the observation of a surgeon. During this period 44 more of its men fell sick; and on its way down to Chikishliár it left behind it 5 men sick with typhus at Duz-Olum and 6 more at Yágli-Olum. On the 25th March (6th April) the battalion on arriving at Karája-Bátir had only 70 men left of its entire peace establishment; and of these many were anæmic and jaded, of whom 6 more were taken into hospital at Chikishliár suffering from typhus.*

Typhus also appeared among other corps of the force, especially those occupying Askhábád and its environs. Some corps, however, thanks to their being quartered in uninhabited places, escaped infection altogether, such as the 3rd Battalion Sámur Regiment stationed in the hills at Chuli,

* Sanitary Report, pages 42 and 43.—*Author.*

and the Turkistán Force which, on its return from the desert, was quartered at Kuhna (Old) Gok-Tapa. There were much fewer typhus cases among the Caucasus Cossack regiments, as these frequently changed their quarters.

The typhus, the focus of which was at Gok-Tapa, spread thence to the south to Askhábád* and to the north to Bámi. Gradually weakening in intensity, it went on from Bámi along the Atrak and Micháelovsk Lines. On the latter it became more intense again in April after the passage of the Tver Dragoons and Orenburg Cossacks on their return from Askhábád, and amongst the troops stationed at Kizil-Arvát, Kazánjik, Akheha-Kuima, and Micháelovsk the increase of typhus took place immediately after the passage of these regiments.†

The only means of meeting an epidemic of typhus is to evacuate at once, not only all those attacked by the disease, but also all who are in the least degree in feeble health. In Trans-Caspia there was not a line which was not infected with corpses, and to take the troops to one side of these lines, somewhere into the hills, required large resources of supply. General Skobelev therefore requested permission from the Commander-in-Chief to hasten the movement of the corps attacked by typhus to the ports of embarkation.‡

The troops feared scurvy most of all, as this disease in its worst form of general exhaustion not unfrequently deprived its victims of their hands and feet and was accompanied by bleeding from the gums. Scurvy attacked everybody, and among those suffering from it were field and other officers and surgeons. The total number of cases of this disease were as follows:—

January-June 1880.		July-December 1880.		January-June 1881.	
Attacked.	Died.	Attacked.	Died.	Attacked.	Died.
106	2	492	13	723	25
Or per month	18	82		120.5	
The proportion of cases of scurvy to the total of sickness was					4.67 per cent.
In 1880 this was					3.4 per cent.
And in 1881					6.52 per cent.

The proportion of deaths from scurvy to the total mortality was in 1880 4.8 per cent., in 1881 4.6 per cent., and in general 4.67 per cent.

The causes of this disease were the heavy work,§ the exhausting conditions of climate, the want of fresh vegetable, &c.

The scurvy cases were very difficult to cure, and consequently a large number of sick accumulated in spite of increased movement of them from place to place and to the Caucasus. The comparatively small death rate from scurvy does not prove that this disease was of a trifling character, as, without killing, scurvy mutilated the men, reducing them to living trunks. The total number of men discharged as unfit for the service in 1879-1881 was 179, of whom 90 were II class, and 84 III class invalids.||

* At Askhábád the first man who fell sick with typhus was an officer of the Tver Dragoons who had arrived from Gok-Tapa.—*Author*.

† Sanitary Report, page 44.—*Author*.

‡ Telegram from General Skobelev to Prince Melikoff, No. 704, dated 26th February (10th March) 1881.—*Author*.

§ Diary of the Staff of the Forces operating in Trans-Caspia, No. 20 of 1880.—Report by Surgeon Malishevski, countersigned by Dr. Heifelder, who agreed with him as to the necessity of observing the Sunday, to which General Skobelev replied: "I agree; but war will not agree." The Principal Medical Officer, Dr. Heifelder, wrote on the 21st August (2nd September) 1880: "I think it my duty to point out that science has long ago determined that neither improved food nor hygienic conditions can replace the losses caused by insupportable physical labour. On this ground, if it is impossible to increase the number of troops, those occupying the most difficult positions should be relieved as often as possible."—Diary No. 4 of 1880.—*Author*.

|| In addition to 54 men of the II and III classes discharged for wounds. In Appendix No. 102, see Return of those classed as unfit for service during 1879-81.—*Author*.

The monthly fluctuations of sickness of other descriptions not of an epidemic character has no special interest, and therefore we think it sufficient to note here the percentages of those diseases to the cases mentioned above.

Eye diseases formed in all 3.27 % of those cases, the percentage in 1880 being 3.74 % and in 1881 2.6 %. There were no fatal cases.

Other diseases formed 36.54 % in 1880 and 31.44 % in 1881, the general percentage being 34.57 %. The percentage mortality from them was 14 % in 1880, 12.54 % in 1881, and 13 % generally.

The percentage of wounded was in 1880 2.14 % and in 1881 5.52 %, and the percentage of deaths from wounds 7.74 % in 1880 and 27.15 % in 1881.

On reducing all the above to a system, we find that for every 100 sick there suffered from—

General diseases in 1880	...	36.54	1881, 31.44	total average 34.57
Fever	"	31.33	" 26.00	" 29.20
Enteric catarrh	"	18.90	" 14.10	" 17.08
Typhus	"	.56	" 12.14	" 5.04
Scurvy	"	3.40	" 6.52	" 4.67
Wounds	"	2.14	" 5.52	" 3.47
Eye diseases	"	3.74	" 2.60	" 3.27
Dysentery	"	3.35	" 1.68	" 2.67

Of every 100 men who died, there suffered from—

Typhus	in 1880	...	7.40	1881, 32.28	total average, 24.00
Wounds	"	...	7.74	" 27.15	" 20.74
Dysentery	"	...	27.70	" 11.28	" 17.09
Other diseases	"	...	14.00	" 12.54	" 13.00
Enteric Catarrh	"	...	25.46	" 6.09	" 12.50
Fever	"	...	12.90	" 5.54	" 8.00
Scurvy	"	...	4.80	" 4.60	" 4.67

In concluding these notes on the sickness and mortality in the force in 1880-81, we shall add the figures of sickness and mortality from all diseases (except wounds) for each month, and also the number of deaths in each month—

				OF WHICH THERE WERE			Deaths.
				Fever.	Catarrh.	Typhus.	
1880 January, cases of sickness	...	723	161	91	3	11	
„ February	„	844	340	113	3	3	
„ March	„	779	176	134	2	3	
„ April	„	666	231	121	9	1	
„ May	„	922	245	173	2	5	
„ June	„	1,122	331	246	...	7	

				OF WHICH THERE WERE			
				Fever.	Catarrh.	Typhus.	Deaths.
1880	July, cases of sickness	...	1,615	476	399	...	9
"	August "	...	2,803	808	667	11	13
"	September "	...	2,685	950	648	6	44
"	October "	...	2,322	826	545	12	59
"	November "	...	1,630	456	441	36	52
"	December "	...	1,564	525	342	25	54
1881	January "	...	1,760	468	376	50	47
"	February "	...	2,261	710	294	398	74
"	March "	...	1,915	437	207	407	131
"	April "	...	1,606	298	305	266	63
"	May "	...	1,381	424	294	129	36
"	June "	...	1,461	546	372	95	29

Comparing the mortality and sickness in 1880 with those of 1879, the very much better sanitary condition of the troops in the expedition under General Skobelev cannot fail to be noticed. In 1879, even although there was no typhus, the highest number of cases of sickness in any one month was 3,360 (in July), and it never descended below 800 (in December). The number of cases of fever in 1879 was greater than in the two following years; in July the number of fever cases reached the large figure of 1,500 men, while in September 1880 (the highest month) the number did not exceed 950. The same may be said of enteric catarrh, the greatest number of cases of which was (in August 1880) 667, while in July 1879 the number was 840. Scurvy seemed to be equally distributed over the whole period, and the number of cases of it only diminished when the strength of the force in Trans-Caspia was reduced.

In 1879, dysentery, which attacked 283 men in June and 328 in August, played the same rôle as the typhus which broke out immediately after the capture of Gok-Tapa. The number of men attacked by dysentery during the second expedition never exceeded 99 in any one month, the largest number of cases being in June and September 1880. All this authorises us to conclude that the measures taken to prevent disease among the soldiers, their improved food, clothing, &c., answered their purpose in 1880-81 and saved some hundreds of men for the chief aims of the expedition.

Still the figures of sickness in the second expedition were great out of all proportion, as the Force, which never numbered more than 14,000 men, had, in the course of 18 months, no fewer than 28,000 cases of sickness, *i.e.*, double its strength.

In conclusion, we must mention that in the diaries of the Staff of the force in Trans-Caspia there are indications that all the drafts arriving for the force had not been carefully inspected on the west coast. Thus, a large number of the men sent as drafts for the battalions of the 21st Division, who arrived in August 1880, appeared to be already suffering from typhus and other diseases, and many others looked jaded and anæmic, so that at the first medical inspection 20 men were sent for treatment to the regimental hospitals.* Of 121 men sent as a draft for the 4th Battalion Daghistán Regiment, 34 fell sick on the road from Chir-Yurt. On joining their battalion, 6 men were sent to hospital between the 23rd and 25th August (4th and 6th September); of the remaining 81 men, one-half appeared in bad health.† 191 men of the Crimean and 168 of the Stávropol Regiment were admitted into hospital during the time those regiments were encamped at Vladikávkaz and on the march to Petrovsk.‡

In passing now to the question of the organization of the transport of the sick in Trans-Caspia and to the Caucasus, we shall first notice the state of affairs in 1879.

In the end of June 1879 the sick of the force, arriving in a never-ending stream, filled up both sections of the Akhál-Tekke hospital, and therefore the question of how this accumulation was to be got rid of became of the highest importance. No special arrangements had been made for this service, and therefore the means which came first to hand had *volens volens* to be used. The Chát section had to be cleared out before the Chikishliár one, because it was the more unhealthy of the two and the nearest to the *oasis*, so that there was reason to shortly expect large arrivals of wounded at it. The hospital had no transport of its own, so to clear out the Chát section the *arabas* in the possession of the troops, which were used to carry provisions, had to be employed. These primitive conveyances were naturally quite unfitted for sick men, and therefore recourse had to be had to the Red Cross Society for the evacuation of the more severe cases. To this end the plenipotentiary of the Caucas sections of this society had placed at the disposal of the Chát section two ambulances with horses and harness complete, and these were of the greatest service.§

The supply of the sick during their transport by land or sea was first conducted by the hospital administration; but during the voyages it very often happened that, in consequence of unforeseen and prolonged delays, the supplies taken for the voyage fell short. To avoid such misadventures a contract was concluded with the *Caucasus and Mercury Company*, on board whose ships the sick were evacuated, for their supply from the restaurants on board at certain prices.

The sick were either taken straight to Petrovsk or were landed at Baku, where they frequently remained a few days before proceeding further, the more serious cases being received into the hospital of the Baku Local Battalion. Only the most serious cases were left in the Petrovsk Hospital; slighter cases and convalescents being sent on to Temir-Khán-Shurá, Hasav-Yurt, and Grozni. For the use of sick convoys, the Red Cross Society had established rest camps at Akhti-Buyun (between Petrovsk and Temir-Khán-Shurá), at the

* Report from Artishevski, No. 1877, dated 27th August (8th September) 1880, in Diary No. 17, page 71.—*Author*.

† Diary of the Staff of the Trans-Caspian Field Force, No. 15 of 1880, page 23.—*Author*.

‡ Report from Dr. Remmert, Inspector of the Medical Department in the Caucasus, to the Commander of the Expedition, No. 611, dated 14th (26th) January 1881.—*Author*.

§ Sanitary Report, page 189.—*Author*.

stanitsas of Shtshedrinskoi, Nicholayevskoi, Samashkinskoi and Slaiptsovskoi, and at the village of Narzanovski. All these points were provided with beds, two changes of linen (for 60 men), warm socks, dressing-gowns, furcoats, table and kitchen utensils, tea, sugar, rum, *vodka*, brandy, and coffee, and, in addition, to each man was issued daily $\frac{3}{4}$ pound of white bread. Surgeon Malinin was detailed to inspect and arrange for all these rest camps.*

In 1879 there were invalided—

In July	82 men	} Total 807 men.
" August	...	...	238 "
" September	...	...	78 "
" October	...	...	384 "
" November	...	...	25 "

From December 1879 till the arrival of General Skobelev in the country no more sick were invalided.

Turning now to the organization of the invaliding service in 1880-81, it must first be remarked that the word "organization" is far from expressing the style of the arrangements for moving the superfluous sick of the army from east to west. There was scarcely any organization, and nine-tenths of all the work of carrying the sick from Bámi and from Gok-Tapa to Chikishliár and Micháelovsk was left to the Red Cross Society, only a little assistance being afforded by Government.

For invaliding purposes it was at first proposed to provide the hospitals with their own transport, consisting of carts fitted up for the transport of sick, and such carts, each for two sick, with a tilt, were ordered and delivered at Petrovsk. Here, however, the bad luck attending all medical stores met them, for the steamers were all filled up with provisions for the troops and there was no room left for these vehicles. Thus in the Diary of the Staff we find the following telegram from General Tomiloff, dated 13th (25th) September 1880—"36 carts delivered at Petrovsk. Please telegraph by what route they are to be sent." To this telegram, General Skobelev added a note—"Have they horses? Without horses they are useless."† It was, however, ordered that these carts were to be delivered at Chikishliár.

The somewhat strange question in the remark by the Commander of the Expedition explains, however, the cause of the disorganization of the evacuation service in rear of the army. There were actually no horses for the carts delivered at Petrovsk and there could not be, since horses (as has been explained in previous chapters) are a veritable nuisance in campaigns in the steppe, for each has to be counted for in arranging for supplies and their numbers have to be cut down as much as possible. For this reason there was no medical transport, and the evacuation of the sick up to the capture of Gok-Tapa was of exactly the same haphazard character as in 1879. Invaliding, however, began in May 1880.

The sick were transported on the *arabas* or waggons of the Government convoys returning empty down the Atrak line, which was the only one by which the evacuation was at first possible. It may be understood that with such means of transport it was impossible to expect that the sick could be carried with much comfort to themselves, and their state is thus described in a letter from Dr. Shtsherbák, consulting surgeon to the Red Cross Society, to Prince Shakhovski, *à propos* of the arrival of these "trains of suffering" at

* Sanitary Report, page 65.—*Author*. | † Diary No. 12, page 261.—*Author*.

Chikishliár—"The sick convoys arriving at Chikishliár from Bámi, Duz-Olum, and other points are in a frightful condition. The sick lie in *arabas* on the bare boards and without bedding, which makes the journey a positive torture to the scurvy patients. There are no tilts to the *arabas*, and consequently the sick are exposed for days at a time to the action of the scorching rays of the sun and to the dust; their linen is filthy, many are in rags, and the greater number of the sick on arriving at Chikishliár complained of hunger and of their wretched treatment on the line of march and at halts."*

On Dr. Shtsherbák's arrival, the invaliding service improved. First of all he, by order of General Skobelev, on the 16th (28th) September began his tour along the Atrak line, and here he established several rest camps, to the commandants of which were handed over the warm clothing and linen required for the sick, which were taken over and entered in equipment ledgers. A convoy belonging to the Red Cross Society accompanied Dr. Shtsherbák from Chikishliár, and from it he issued stores to the posts and rest camps along his route. At Bámi, where a central depôt for the stores of this society had been established, the waggons were emptied and the sick detailed to be sent down to Chikishliár were placed in them. Thus was formed the first sick convoy evacuated by the Red Cross Society and under the immediate superintendence of its agents. It only arrived at Chikishliár on the 4th (16th) October 1880. Dr. Shtsherbak having finished his tour along the Micháelovsk Line, reported to the Temporary Commander of the Troops that in its actual state (in October 1880) that line was not suited for the removal of the sick on account of the complete absence of water fit for drinking on the first 130 *verssts* (86½ miles) from Micháelovsk, the small number of stations, and finally because the road along it was only a camel path. If the Micháelovsk line were decided upon for the removal of the sick on account of its shortness and the good harbour at Micháelovsk, it would be necessary for the sick to halt at night in the open air, which would be very bad for their health.†

Dr. Shtsherbak's conclusions were considered correct, and it was therefore resolved to make the Atrak line the only route for the removal of the sick and wounded until the railway was brought up to Kazánjik.

On the establishment of the rest camps and on linen and warm clothing being supplied at the halting places, the condition of the sick somewhat improved, though for a long time still they had to be conveyed in the waggons and even in the *arabas* of returning convoys, and for a long time the removal was irregular and had a completely haphazard character. Thus the transport of the sick to the rear in 1880 was not much better than in 1879.

The transport by sea was, however, quite otherwise. According to their agreement of the 8th (20th) September 1879, the *Caucasus and Mercury Company* was bound to carry sick to Baku and Petrovsk in the return journeys of their store-ships. There were, however, on these no fittings for the transport of the sick, as the latter were not always sent in one and the same ship, but in any one that was convenient at Chikishliár. The sick were simply placed on the deck, and were there left exposed to all the asperity of the climate and to manifold discomforts.‡ Food was supplied from the restaurants on payment by Government of 60 *kopecks* per man *per diem*, and bread in addition was

* Letter to Prince S. V. Shakhovskii, dated Krásnovodsk, 22nd April (4th May) 1881.—*Author*.

† Diary No. 4, pages 51-52: Report from Dr. Shtsherbak, dated 18th (30th) September 1880.—*Author*.

‡ Memorandum from General Skobelev to the Commander of the Port of Baku, No. 5411, dated 18th (30th) September 1880.—*Author*.

issued by Government. As the sick to be evacuated were only accompanied by Non-Commissioned Officers, on account of the deficiency of officers, and as these received advances of money to pay the restaurant keepers to ensure the sick receiving their food regularly, the Commander of the Expedition made arrangements in August 1880 for the Military Officers and officials of the Field Control stationed at Baku and Petrovsk, as members of the receiving boards, to question the sick on board the steamers on arrival as to whether they had regularly received their food during the sea passage.*

When, in the second half of 1880, renewed necessity arose for the removal of the sick from Krásnovodsk to the west coast of the Caspian, the Inspector of the Transport of troops on the Caspian was ordered to conclude a fresh contract with the *Caucasus and Mercury Company*. This was concluded on the same basis as before, i.e., the sick were to be carried in store ships and not on the mail steamers, although the former were dirty, uncomfortable, and quite unfitted for this service. The allowance of 60 *kopecks* and the system of supply was to be as before. The senior surgeon of No. 3 hospital was ordered to telegraph to the commander of the Local Battalion at Baku on each ship-load of sick being sent off, stating their numbers, but often, on account of stormy weather or the ships having to be repaired, the sick had to be left in the medical establishment at Baku.†

All this was both dear and impractical,‡ not to speak of the haphazard character of the whole arrangement which might have very bad effects, in the case of sudden epidemics, on the health of the troops in consequence of the accumulation of sick at the points on the coast. The Commander of the Expedition considered the evacuation of the sick on the company's store-ships to be unsatisfactory, and he clearly saw that it was necessary to have a specially fitted steamer for the purpose which should make constant trips at regular intervals, and therefore carry out the transport service with the necessary precision. There was, however, no money available for the hire of such a steamer, and therefore on the 16th (28th) September 1880, General Skobelev requested the Commander-in-Chief to have the Government steamer *Nasr-ud-din-Sháh* fitted up as a sick transport-ship. After thorough repair, on the 1st (13th) November this ship would be able to begin its service at the very time when it would be most required.§ Permission was accordingly given.||

To work out the description and cost of the proposed fittings, a committee, composed of the commander of the steamer, a naval Engineer, the Surgeon of the Baku Local Battalion, and the senior Surgeon of the naval hospital, was appointed. On his part the Commander of the expedition intrusted Dr. Heifelder with the immediate superintendence of the matter and put a sum of 2,000 *roubles* at his disposal.¶ On the 26th September (8th October) Dr. Heifelder reported on the arrangements which could be made on board the steamer, and stated that men suffering from slighter diseases would have to be left on deck on account of want of room in the cabins. All the projected works could be carried out by the *personnel* of the steamer by the 1st (13th) November

* Memorandum from the Chief Controller to the Commander of the Expedition, No. 167, dated 25th August (6th September) 1880.—*Author*.

† General Order, Trans-Caspian Field Force, No. 306, dated 16th (28th) September 1880.—*Author*.

‡ Diary of the Staff, Trans-Caspian Field Force, No. 12, pages 255, 259, 280.—*Author*.

§ Telegram from General Skobelev to the Commander-in-Chief, No. 5306. Memorandum from him to the Commander of the port at Baku, No. 5411, dated 18th (30th) September 1880.—*Author*.

|| Telegram from the Commander-in-Chief, dated 17th (29th) September 1880.—*Author*.

¶ Report from the Chief Surgeon of the Force, No. 348, dated 26th September (8th October) 1880.—*Author*.

1880. Afterwards, during the invaliding service, the medical authorities detailed a surgeon and orderlies for duty on board the steamer for each trip. Food was to be prepared in the steamer's cook-house, and it was proposed to issue the morning meal to the crew somewhat before, and the evening meal somewhat after, the usual times. There was always to be hot water for the sick on board the steamer. The Red Cross Society on its part detailed Sisters of Mercy to nurse the sick, and also furnished some of the supplies for the voyages.* After each voyage the steamer was to be disinfected at the expense of the hospital. The senior surgeon of the naval hospital and the surgeon of the Baku Local Battalion were put in charge of the duties to be carried out on board, and the steamer thus prepared began its transport work at the end of November 1880.

At the end of January 1881, when a typhus epidemic broke out among the troops, it was considered that the *Nasr-ud-din-Sháh* alone would be insufficient to carry out the invaliding service. Captain Makároff, A.D.C., was therefore questioned as to whether it would be possible to fit this ship to carry a greater number of sick† and as to the cost of such fittings, and he was at the same time ordered to enter into negotiations with the *Caucasus and Mercury Company* and find out the cost of fitting out a ship for the evacuation of the sick, and the payment that would have to be made for its hire. To this Makároff replied that the *Caucasus and Mercury Company* demanded 700 roubles for the fitting up of a schooner to carry 120 sick, and 1,500 roubles for that of one to carry 220, and, counting the payment at 9 roubles a mile, it would require 3,222 roubles for each journey from Krásnovodsk to Petrovsk, and 3,900 from Chikishliár to Petrovsk.‡ As for the *Nasr-ud-din-Sháh*, places for 20 more sick could be found on deck.

On his part, Makároff proposed to fit out the Government sailing ship *Aist* to hold 60 sick, and to have this latter towed by the *Nasr-ud-din-Sháh*.§

As in April the epidemic abated, these proposals were not carried out, and the whole invaliding service by sea was carried out by the one steamer mentioned above.

At the time of the siege of Gok-Tapa, the Red Cross Society carried out the invaliding of the sick from the siege camp to Bámi, and from thence down the Atrak line they were transported partly on Red Cross vehicles and partly on Sansieff's *arabás*.

It was only after the capture of Gok-Tapa that the invaliding service was organized in the full sense of the word, and then its management was centralized in the hands of the chief plenipotentiary of the Red Cross Society, Prince Sihakovski, and at the same time (from the 16th (28th) February) work began along the Micháelovsk line as the permanent railway had been advanced as far as Aidin and the Décauville line to Akhcha-Kuima.

About the same time the want of horses was made good by 96 of those belonging to the 45th Ammunition column being handed over for the invaliding service.||

By General Order, dated 17th (29th) January 1881, Prince Shakhovsk was appointed chief of the service for the evacuation of the sick and wounded from Gok-Tapa to the ports of Chikishliár and Micháelovsk. His duties were

* Report from the Chief Surgeon of the Force, No. 348, dated 26th September (8th October) 1880.—*Author*.

† Telegram from Grodekoff to Makároff, No. 100, dated 30th January (11th February) 1881.—*Author*.

‡ Telegram from Makároff, No. 248, dated 3rd (15th) February.—*Author*.

§ Telegram from Makároff, No. 235, dated 1st (13th) February.—*Author*.

|| General Order, Trans-Caspian Field Force, No. 88, dated 3rd (15th) March 1881.—*Author*.

as follows :—(1) He was to take timely measures to prevent the hospitals and infirmaries being filled up with sick or wounded and to insure the sick, on being despatched from the hospitals, being placed in properly fitted up vehicles or railway waggons and supplied on the road with everything necessary to preserve them from cold. He was to see that with every convoy there were surgeons with a proper supply of bandaging materials, and Agents of the Red Cross Society with all articles required for keeping up and re-establishing the strength of the patients on the way ; (2) he was to lay down regular dates for the evacuation of sick from each hospital and infirmary along all the lines. According to the number of empty beds in each hospital or infirmary, he was, on each occasion, to appoint a date for the movement, and name the *maximum* number of patients who could be sent away from one hospital and received in the next. The hospitals were, therefore, to communicate to him not less than twice a week the number of sick in their charge and the number of empty beds.

Prince Shakhovskii's head-quarters were fixed at Bámi as a central point. In questions regarding the invaliding, the chief of the invaliding service was to put himself in communication with the General Officer Commanding the lines of communication, the Principal Medical Officer, and the road commandants for general matters, and in each separate case was to correspond with surgeons in charge of hospitals and infirmaries and station commandants. At his disposal were placed all the carts belonging to the military authorities and 50 of San-sieff's *arabas*. He was in no way to interfere with the arrangements of the military surgeons as to the sick and wounded men to be invalided.*

The numbers of patients evacuated to the west coast were as follows :—

				Men.
In September 1880	...	...	...	92
„ October „	...	...	...	190
„ November „	...	...	...	153
„ December „	...	...	...	60
„ January 1881	...	...	...	151
„ February „	...	...	...	124
„ March „	...	...	...	165
„ April „	...	...	...	390
„ May „	...	...	...	170
„ June „	...	...	...	309
Total				1,804

Within the limits of Trans-Caspia more than 5,000 men were invalided.†

The first convoy with wounded arrived at Micháelovsk on the 22nd February (6th March). From that time the line of evacuation was transferred to the Micháelovsk route, which was also the main line of communication. On the 19th April (1st May) the invaliding of the sick and wounded was completed, and the duties of the Inspector of the Invaliding Service were at an end.‡

Works for the disinfection and purification of the country were principally undertaken in January 1881 after the capture of Gok-Tapa, although in 1879,

* General Order, Trans-Caspian Field Force, No. 88, dated 3rd (15th) March 1880.—*Author*.

† No exact figures are available. In the Sanitary Report it is stated that in 1879-81, 2,822 men were evacuated to the Caucasus and 7,994 within the limits of Trans-Caspia. In the list of sick transferred, however, more than 12,000 men are shown.—*Author*.

‡ General Order, Trans-Caspian Field Force, No. 171, dated 19th April (1st May) 1881 : Telegram from General Skobelev to the Commander-in-Chief, No. 692, dated 26th February (10th March) 1881.—*Author*.

1002
on the arrival of General Tergukásoff, extensive operations of the same kind had been conducted with a view to disinfecting the country between Duz-Olum and Chikishliár, in which more than 10,000 camels had perished.

In 1880 the Temporary Commander of the Troops recommended cleanliness in clothing and quarters as the best measures against infectious diseases. In this respect General Skobelev's General Order No. 479, dated Duz-Olum, 16th (28th) November 1880, is very instructive. It runs—

"The following rules are to be strictly followed in the arrangements of camps and bivouacs :—

"One of the principal cares of every commanding officer must be the health of his men and the proper care of camps and bivouacs, for which, besides nourishing food being provided, the following points must be attended to :—

"(1) Tents, *kibitkas*, *yulameikas* or mud huts must be kept thoroughly clean and ventilated, and refuse and filth taken out of the camp.

"(2) The wells must be kept in order and special care must be taken that the troops are provided with the best possible water.

"(3) The latrines must be carefully looked after and every effort made to keep them clean. Every day the bottoms of the latrine pits must be covered with a layer of earth, and, when they are filled up, new ones are to be dug not less than 2 *arshins* (56 inches) deep. This rule is strictly to be observed also on temporary halts. These pits are to be dug in the lowest parts of the ground and to leeward of camp. The officer on duty is responsible for the cleanliness of the latrines.

"(4) In the same way the kitchens are to be looked after. All refuse and filth must be thrown every day into pits dug near them, and these on being filled up are to be covered with a layer of earth not less than an *arshin* (28 inches) thick. If the slaughter-houses are near the kitchens, the same pits may be used for the offal, bones, and blood of the animals slaughtered. If the slaughter-houses are apart from the kitchens, as is much better, special pits must be dug for them. The officer in charge of the kitchens and the kitchen orderlies are responsible for their cleanliness and also that of the slaughter-houses. This does not, however, diminish the responsibility of commanding officers, and they must always remember that the good state of a camp is a tolerably just measure of the efficiency of the troops occupying it, of the attention to their duty shewn by commanding officers, and even of the preparation of the troops for battle."

The small amount of sickness from typhus and even from dysentery in 1880 shows that these preventive measures, which were impressed upon every one, both verbally and in orders, were sufficient to maintain the health of the troops.* In 1881, however, after the fall of Gok-Tapa, in the siege and storming of which more than 10,000 of the enemy had perished, these measures of cleanliness were quite insufficient, and therefore active measures of disinfection had to be resorted to. Immediately after the capture of the fortress, General Skobelev, foreseeing the fatal consequences of his victory, formed a special committee under the presidency of the Principal Medical Officer, with the camp

* In September, in consequence of the large numbers of dead camels along the Atrak line, orders were given to burn and bury them. On this subject Colonel Engbrecht reported: "Orders were given to the Commandants; but I do not think that anything will come of this."—Telegram from Engbrecht to General Petrusévitch, No. 660, dated 19th September (1st October) 1880.—*Author*.

commandant as representative of the troops, an official of the Red Cross Society, and a dispenser as members, to work out a scheme for the disinfection of the ground which was covered with the bodies of men and horses.

First of all it was necessary to bury the bodies; and as the troops were fatigued and had to move forward to Askhábád, the Persians released from captivity were employed on this work.

Afterwards, when typhus had further developed, disinfecting rooms were constructed at the two great centres of infection, Bámi and Gok-Tapa, in which the clothing and linen of typhus patients were burnt, and tainted articles belonging to the troops were fumigated with sulphur and carbolic acid. Baths were also constructed for the men and the troops were ordered to make use of them, and a bathing house was also opened at the hot sulphur spring at Archmán. It became also necessary to establish disinfecting rooms at Chikishliár and Krásnovodsk where the kits of the troops returning to the Caucasus were fumigated and finally disinfected. During the progress of this work, the troops returning from the *oasis* were placed in a separate camp and each soldier was obliged to go to the baths where he received fresh linen, part of which was issued from the stores of the Red Cross Society. The clothing of all private persons and traders was subjected to the same process.

Finally, to avoid introducing a typhus epidemic into the Caucasus, the disinfecting committee considered it necessary to disinfect all postal packages, and every corps sent over was put into quarantine for two weeks. The latter measure could not, however, be carried out, as such large sums had to be paid for the detention of the steamers. A sanitary station was therefore established at Petrovsk, consisting of 22 hospital tents, and here all suspected articles were again disinfected and the corps arriving were detained under observation of military surgeons detailed for this purpose. In this camp, the 1st and 2nd Battalions Daghistán Regiment, 3rd and 4th Battalions Apsheon Regiment, and a half battery of the 21st Artillery Brigade were detained. On the 4th (16th) May the camp was broken up, its tents were carefully disinfected, and the ground upon which it stood was cleaned.*

The amount of money spent on disinfectants shows that the work was energetically carried on, and the speedy abatement of the typhus epidemic in April 1881 also bears witness to this. The money spent on disinfection came from two sources, in addition to that expended from the private resources of the Red Cross Society. By order of the Commander-in-Chief, 2,200 *roubles* were at first assigned for the purchase of 38·4 cwt. of chloride of lime and 48 cwt. of quicklime, and 3,003 *roubles* were also assigned at Baku for the purchase of disinfectants.†

In addition to this, 10,000 *roubles* were issued by the Field Intendence to the Commandant of the Atrak Line for the same purpose, and the Red Cross Society supplied in kind 32 cwt. of sulphate of iron, 1·6 cwt. of chloride of lime, 1 barrel of disinfecting earth, and 25 barrels of photogene for burning bodies,‡ and from the stores remaining over from 1879, 73·6 cwt. of chloride of lime were put at the disposal of the disinfecting committee.

After Gok-Tapa had been disinfected, which had been done principally by the bodies being collected and buried, the chief attention of the committee was

* Sanitary Report, pages 160-161.—*Author*.

† Sanitary Report, page 158.—*Author*.

‡ For the disinfection of Gok-Tapa alone were used 480 cwt. of quicklime, 14·72 cwt. of chloride of lime, 9·28 cwt. of carbolic acid, and 13·44 cwt. of photogene to burn the most decomposed bodies.—Sanitary Report, page 158.—*Author*.

turned to the road from Bámi to Kizil-Arvát, where the typhus epidemic had broken out anew in consequence of the great mortality amongst the camels of the convoys which had passed through. At Bámi from 15 to 17 camels had died every day; and as only three companies were stationed there, these could not carry out the wearying and unpleasant work, burying their bodies, and so it was intrusted to the Kirghiz, to assist whom two pairs of horses and a two-horsed limber were issued by Government, so that the bodies might be dragged two miles away from Bámi. On being buried, the bodies were first covered with quicklime and sprinkled with a solution of sulphate of iron, and then covered up with earth.* The Sanitary Report states that this work had very bad effects upon the health of the Kirghiz employed upon it.

In the frequent mention of the Red Cross Society in the preceding pages, the beneficial and useful rôle played by this humane Institution in the Akhál-Tekke expedition has been explained. Working on their own resources and without that formality which acts as a drag on all freedom of action, the activity of the Red Cross Society extended to places and spheres never reached by the military medical authorities, and not unfrequently it was at work long before them. For this reason, the work of the agents of this society have a full right to the attention of those who desire to make themselves acquainted with the sanitary condition of the troops during the expedition, or of those who are interested in the details of the working of the hospital system in this campaign.

The regulations for the Red Cross Society in the Expedition† defined its sphere of activity as follows:—

The society has no special medical establishments of its own, but its principal objects are—

- (a) to afford material help;
- (b) the nursing of the sick by Sisters of Mercy;
- (c) the care of the sick during evacuation.

The Red Cross Society rendered great assistance to the sick in the hospitals, infirmaries, regimental hospitals, convoys, dressing stations and generally in all places and on all occasions within its power. After satisfying the demands of the medical establishments, the efforts of the Red Cross were directed, as far as possible, to preventing sickness among the troops by improving their sanitary condition.

The resources of the Red Cross Society were principally drawn upon for the supply of such stores as were not issued by Government or the issue of which was insufficient under local conditions, and therefore one of the principal forms taken by its aid was the addition to Government supplies and medical resources of all that would facilitate the cure or lighten the sufferings of the sick or that would tend to the improvement of the sanitary condition of the troops generally.

According to this plan, the central administrative body of the society sent tobacco, soap, tea, sugar, &c., to the troops, and at the same time it had linen stretchers prepared which could be used as beds, it furnished three ice machines, and it ordered a store of medicines, to meet extreme and unforeseen necessities.

* Report of the Assistant to the Principal Medical Officer, No. 1176, dated 22nd January (3rd February) 1880.—*Author*.

† These regulations were published to the troops in General Order on the 9th (21st) May 1880 (See Appendix No. 103).—*Author*.

For the care of the sick, the Red Cross Society sent carefully selected Sisters of Mercy and experienced female cooks. These sisters received 15 *roubles* a month from Government and the same sum from the Red Cross Society and were also allowed by Government officer's rations and quarters.

On account of the unfavourable conditions of the theatre of operations, the society could not take upon itself the whole responsibility for the evacuation of the sick, but it promised to afford aid as follows :—

- (1) To provide, as far as possible, all the convoys with linen, medicines, and additional food.
- (2) To supply proper fittings for the transport of the sick on camels, *arabas*, &c.
- (3) To organize the sea transport, *i.e.*, on a steamer being despatched to the west coast, it undertook to place Sisters of Mercy on board of it with supplies to lighten the sufferings of the sick and improve their food.

On its part, the military administration was to assist the Red Cross Society as follows :—

- (1) It was to put at its disposal everywhere, where it was necessary and possible, buildings for dépôts and for quarters for the *personnel* of the society, without payment, or, if no such buildings were available, it was to put suitable ground at its disposal.
- (2) The stores and *personnel* of the Red Cross Society were to be carried free of charge, but in such proportions that the stores of the society did not delay the despatch of military baggage.
- (3) Forage was to be issued to the horses of the Society.
- (4) The required number of soldiers were to be detailed to look after the horses and act as servants to the Sisters of Mercy and the agents of the Red Cross Society.
- (5) The agents of the society had unrestricted right of entry to all military sanitary establishments, and were to be furnished with a standing written permit from the Staff of the Force. In taking advantage of this right, the agents of the Society were in no way to interfere with the arrangements of the military authorities, but were to make themselves acquainted with them, so as to make their operations conformable to established regulations and perform their duties in a proper manner.

The above regulations for the Red Cross Society were drawn up in 1880, but in 1879 the Caucasus section only of the society had taken part in the expedition. By it a sanitary column was formed, under the plenipotentiary Sarajeff, consisting of 2 surgeons and 9 orderlies with 4 large waggons, 12 carts, and a dépôt which contained bandaging materials, instruments, spectacles, filters, 500 changes of linen, 1,000 pairs of cloth shoes, bedding for 150 sick, tea, sugar, preserved milk, tobacco, spirits of wine, linen, biscuits, soup, 3 large and 4 small tents, a large supply of fresh vegetables such as cabbage, potatoes (224 cwt.), cucumbers (20,000), horse-radish, carrots, lemons, &c., &c. The principal dépôt was established at Chikishliâr with branches at Chât and Duz-Olum.

The campaign of 1879 was very quickly played out ; on the 16th (28th) June the troops left Chât and on the 28th August (9th September) the bloody and unsuccessful attack on Gok-Tapa took place. Notwithstanding this, the small and

hastily formed Red Cross ambulance followed the advanced force and during the action of the 28th August (9th September) received 22 wounded who were attended to by the Red Cross surgeons. Sarajeff's activity on this fatal day and in the retreat of the Force which followed it will be remembered by all who took part in the assault. Personally superintending the stretcher-bearers, he succeeded in collecting the wounded from the field of action and loading them on his 10 carts and on camels, and afforded great assistance to the Principal Medical Officer of the Force. At the first halt he collected everything from the sutlers which could conduce to keeping up the strength of the sick or by providing them with food. On the further retreat he distributed with a liberal hand the Red Cross supplies at Chát and Chikishliár, and thus gained the thanks, respect, and love of literally all the officers and men who took part in the expedition.*

The cholera-belts issued from the Red Cross stores were of special benefit to the troops when, in 1879, enteric catarrh and dysentery had begun to make great ravages, and the warm clothing also issued from them was of great advantage to the sick during their evacuation by night.

In the following campaign of 1880-81, for which much larger resources were attached, the Central Administration of the Red Cross Society took part, the actual execution of its measures being intrusted to its Caucasus section. The *personnel* of the Society engaged in the campaign included a chief plenipotentiary, Actual State Councillor Balasheff, Plenipotentiary Tardan, Surgeons Shtsherbak and Manilovski, 4 agents, 16 Sisters of Mercy, 1 sanitary official (the monk Afanasii), and 51 orderlies, grooms, and artificers. Its train consisted of 93 draught and 8 riding horses, 1 mule, 25 camels, 12 waggons, 39 carts, 17 *arabas*, and 1 *tarantáss*.

The sanitary column of the Red Cross Society, however, only attained this strength in November 1880, and from September 1879 to September 1880 the Caucasus plenipotentiary had to carry on his work with slight assistance from the central administration, which sent in May 1880 a small convoy of stores along with Dr. Studitski. At the end of the campaign of 1879, the Caucasus section enlarged its dépôts at Chikishliár, Chát, and Duz-Olum and filled them up with fresh stores, so that, in case of necessity, they could supply the hospitals, infirmaries, regimental hospitals, and corps with warm clothing and other articles. In each dépôt an agent and two orderlies were stationed, and special rest-camps, each consisting of two *kibitkas* with camp-beds and iron stoves, were established at Karája-Bátir and Yágli-Olum. During the invaliding of the sick, tea, wine, tobacco, and warm clothing (sheep-skin coats, felt shoes, knitted waistcoats, and caps) were issued to them. The transport of the Red Cross Society was increased to 5 waggons with 23 instead of 14 horses. These were used as store waggons and also for the removal of the sick, and even marched with the flying columns detailed to oppose the Tekke raids on our posts during the autumn and winter of 1879.

On military operations being renewed in May 1880, by order of General Skobelev a small ambulance was formed, consisting of 4 orderlies with 5 carts, provided with stretchers and bandaging materials, which marched with the troops into the *oasis*. At the same time, by means of the stores brought by Dr. Studitski from Astrakhán in the end of May, a dépôt was formed and brought up to Bámi where it was opened on the first day of June. This dépôt contained articles of 60 different descriptions, the

* Letter from General Skobelev to Prince Orbeliani, No. 4765, dated 16th (28th) August 1880.—*Author*.

total weighing 64 cwt., and consisted principally of medicines, wine, preserved meats, and tobacco, and its object was to supply the regimental hospitals and the garrison of Bámi with these articles. In July its sphere of operations was enlarged and the Bámi hospital and the regimental hospitals at Band-Hassan, Khwája-Kala, and Kizil-Arvát were supplied from it. The Red Cross Society took an active part in the reconnaissance of Gok-Tapa on the 6th (18th) July and sent two hospital-attendants with 2 carts, stretcher-bearers, bandaging materials, and a supply of eatables. Four severely wounded were carried away from this affair on the carts of the Red Cross Society. At the same time 10 beds were placed by it in the Bámi hospital for the wounded from this action, and these were provided by the Society with two changes of linen, woollen blankets, slippers, and dressing-gowns. Somewhat later the same was done for all those who were seriously sick.

On the Chát hospital being transferred to Duz-Olum, the hospital administration made plentiful use of the assistance afforded by the Red Cross Society, both in the transport of the stores and during the first days of the reopening of the same hospital. During this time the supply of the sick with bedding *en route*, and with tea, sugar, and wine, &c., at halts was carried out by the Red Cross Society.

After the heroic death of Dr. Studitski, the ambulance furnished by the central administration was also put under the charge of Sarajeff, the plenipotentiary of the Caucasus Section.

In August, although its action had officially ceased, the Caucasus section established, with stores from the depôt of the central administration, infirmaries with 12 beds at Bála-Ishem and with 20 at Micháelovsk, and in addition provided the Krásnovodsk hospital with everything it required which was not supplied by Government.*

On the 8th (20th) July 1880 the official activity of the Caucasus section of the Red Cross Society was considered as at an end, for its president had informed General Skobelev of Sarajeff's recall and of all the hired agents of the Society being discharged on account of Balashev having taken over the direction of affairs. To this communication the Temporary Commander of the troops sent a reply and recorded the services performed by Sarajeff. The latter, however, continued to work with the force until November, after which we find no more mention of his name among those of the workers in the cause of humanity until the organization of a regular evacuation service by Prince Shakhovskii and then Sarajeff was appointed to superintend the invaliding from Chikishliár.

The new plenipotentiary, Councillor Balashev, arrived at Chikishliár in the last week of September 1880,† and remained in office until the 14th (26th) November, when Prince Shakhovskii arrived.

On the 16th (28th) December, the latter laid before General Skobelev a detailed statement of the operations of his ambulance up to the occupation of Samurskoye.‡ We shall not here reproduce in full the report of Prince Shakhovskii, as the assistance afforded by the Red Cross Society to the hospitals and sanitary service has been mentioned on each of the various

* Notes on the operations of the ambulance of the Caucasus section of the Red Cross Society from May to August 1880. Diary No. 45, page 26.—*Author*.

† He had arrived with General Skobelev in Trans-Caspia in the beginning of May, and had then returned in the beginning of June to St. Petersburg, with a report for the central administration.—*Author*.

‡ Memorandum from him, No. 15, dated 16th (28th) December 1880. In Appendix No. 4, see return of articles, &c., furnished by the Red Cross Society and sent to Trans-Caspia in 1880.—*Author*.

occasions. In a few words, the chief features of Prince Shakhovskii's operations from the 16th (28th) November to the 16th (28th) December were as follows:—

He divided the whole theatre of operations into three distinct parts and put at the head of each one of his plenipotentiaries.

The first *rayon*, under the plenipotentiary Fremont, included the Micháel-ovsk line and the large depôt at Krásnovodsk with a branch at Kazánjik. In this *rayon* the infirmaries at Mulla-Kári and Bála-Ishem with 50 beds at each and that at Fort Alexandrovsk with 25 beds had been provided with everything they required by the Red Cross Society.

The second or Chikishliár *rayon* under Sarajeff included the whole line of invaliding from Duz-Olum to Chikishliár and to the west coast of the Caspian. In it were the Chikishliár depôt, and the Karája-Batir, Yágli-Olum, and Chát rest-camps. An infirmary with 50 beds was established by the Red Cross Society at Yágli-Olum.

The third or Bámi *rayon*, under Balasheff, included the evacuation line from Duz-Olum to Bámi and on to Sámurskoye, and in it were the central depôt at Bámi with a branch at Duz-Olum and 6 rest camps at Társakán Khwája-Kala, Band-Hassan, Archmán, Durun, and Kalát. The infirmaries at Khwája-Kala and Durun had been furnished with everything required for 50 beds.

From Sámurskoye to the front constituted the active *rayon*, the immediate superintendence of which was instructed to the acting plenipotentiary, Captain Maksimoff. In it were a hospital with 150 beds, mobile dressing stations under Surgeons Shtsherbak and Malinovski and the transport, consisting of 30 carriages of various types with 82 horses. The regimental hospitals at Sámurskoye in December also drew largely from the stores of the Red Cross Society, receiving from them stretchers, linen, and other necessary articles.

Prince Shakhovskii took most energetic measures to ensure the efficiency of the Red Cross Ambulance with the advanced force by quickly bringing up from Chikishliár to Bámi, by hired carriage, and from Bámi to the Sámurskoye depôt everything which circumstances or the climate could render necessary.

We must remark that the *personnel* under Prince Shakhovskii's orders was considerably larger than had been at first proposed. It consisted of 125 persons, in all, *viz.*, 4 plenipotentiaries, 2 surgeons, 2 hospital-assistants, 2 senior agents, 2 junior agents, 28 Sisters of Mercy,* 1 female inspector of depôts, 4 female assistant inspectors, 15 caterers, 3 sanitary officials, 1 mechanic, 1 superintendent of transport, 2 smiths, 2 harness makers, 2 carpenters and locksmiths, 38 drivers, 9 camel-drivers, and 7 servants, in all 92 men and 33 females.

We have already mentioned the services rendered by the society during the siege and storming of the Tekke fortress, when it placed its hospital of 150 beds at the disposal of the Commander of the Expedition who united it to that of the Sámur Regiment. It only remains to say that the amalgamation of a government and a private hospital did not work well. The command was divided and complaints were made of the bad bandaging of the doctors of the Red Cross Society. To prove this to have been so, the case of one man wounded on the day of the assault is adduced, who was actually sent to No. 4 hospital without his medical history sheet (? !), of which the hospital made a report to the Temporary Commander of the troops as a circumstance which might have

* Of the Krestovozdvizhenskyye and Kasperovskyye communities.—*Author.*

a pernicious effect on his cure. All this compelled General Skobelev to sever at the first opportunity the unnatural union between Government agency and private enterprise. We know that on the 4th (16th) February the combined hospital was broken up.

We have seen above how Prince Shakhovskii who was appointed superintendent of the invaliding service after the capture of Gok-Tapa, arranged for this service, which was only fully organized from this date.

In conclusion, it must be mentioned that at the siege of Gok-Tapa two Sisters of Mercy, Countesses Milutin and Stryakoff, received contusions in the breast, and that the Red Cross Society had its own losses to lament in the Akhál-Tekke campaign. The first to fall on the 21st June (3rd July) was the energetic and daring companion of General Skobelev in the trenches before Plevna, Dr. Studitski, and 12 men of different grades were wounded before Gok-Tapa.

The activity of the Red Cross Society will be eternally remembered by those who took part in the Akhál-Tekke expedition. The self-sacrifice of its members was boundless and aroused the astonishment of the whole force. The confidence in it was complete, and the wounded preferred to be treated in the Red Cross hospitals to being taken to the Government establishments. The accessibility of the Red Cross resources even led to their stores being abused, so that General Skobelev was obliged to issue the following order:—

“Many Commanding Officers and Surgeons have applied to the Red Cross Society for the issue to them, for the use of the men, of furcoats, knitted waistcoats, warm footcloths, and linen, although all these articles are to be found in Government stores from which all the wants of the troops have been and will be met, and from which linen, which has been prepared in large quantities, can always be issued. There have also been cases of demands for flannel clothing for officers and men.

“Russian troops have carried on more than one war in the depth of winter without knitted waistcoats and flannel clothing, and, if they are now provided with warm clothing by Government, it is because in this country troops are exposed to most exceptional conditions of climate. This, however, does not give them the right to demand from the Red Cross Society such articles which are not only not according to regulation, but are even completely superfluous, all the more so that the needs of the troops have been abundantly supplied by Government.

“The Red Cross Society has been established to render extra assistance to the sick and wounded in war and not to supply linen and warm clothing to the troops. If there are none of these things in Government stores, the Intendancy and the Staff of the force will take care that the deficiencies are supplied. I therefore order all Commanding Officers and Surgeons on no account to apply to the Red Cross Society for any issue of clothing for the companies, *sotnias*, batteries, or detachments, without first obtaining permission from the Staff of the force or the officers commanding lines of communication or detached forces, who, knowing the state of the troops and depôts, may, in extreme cases and with the consent of the Red Cross officials, authorize the issue of warm clothing or linen to the troops.”*

In resuming what has been said in this chapter, it is impossible not to do justice to the great exertions of the military authorities and private representatives of humane associations to lighten the sufferings of our soldiers in the

* General Order, Trans-Caspian Field Force, No. 459, dated 14th (26th) November 1880.—*Author*.

campaign of 1880-81, and, as far as possible, to save them from sickness and death. The Government authorities regarded their task in a rational manner and with broad views. The clothing of the soldiers was chosen so as to be fitted both for midday heat and midnight cold, and for their shelter, for the most part excellent *yulameikas* or *kibitkas* and even at last hut-barracks at Micháelovsk and Chikishliár, all warmed with iron or brick stoves in winter, were provided.* The food was luxurious even in its allowance, the ships' rations were improved at the expense of the Red Cross Society and thus made more varied, ice was provided, the medicines were properly chosen, and finally a numerous medical *personnel*, exceeding even the hopes of the Commander of the Expedition, was detailed, and all their measures had most beneficial results.

With all that, the amount of sickness in the force, which numbered about 12,000 men, reached 29,000 cases, and that in a very short space of time, which cannot but be termed excessive. The climate was very unfavourable, and the work demanded from the troops evidently exceeded their strength. Sickness prevailed despite the humane efforts of all. It appears to us that the complaints as to the hospitals having no transport of their own, and as to Red Cross stores being given the preference over those belonging to the military medical authorities, both of which facts were brought forward as the causes of the great amount of sickness, are not well founded. Every hour imposed upon the force the necessity of finding forage for it and was a regular burden, as oats and even hay had to be brought up from the coast. On the other hand, in the absence of Government stores, the Red Cross Society scattered its supplies broadcast, so that the amount of sickness could not have been increased by Government medicines being left behind at Petrovsk while private ones were being used by the sick at the front.

The fact is that the whole state of affairs was abnormal; but as a matter of history this state of affairs was without influence on the issue of the campaign, except in the matter of unavoidable privations. Indeed it could not be otherwise. In a force whose most energetic sanitary officer was its commander, who was always showing himself everywhere, superintending everything personally, making himself acquainted with everything, and watching over everything, and whose first care was to spare the health and life of his soldiers everywhere where the service did not suffer by this being done, the large percentage of sickness can only be attributed to causes against which all efforts were of no avail. The importance and practical nature of what was done is sufficiently shewn by the comparatively small death rate in the force from the epidemics of typhus and dysentery and from wounds. The local conditions prevented sickness being avoided, but cure was quickened and large numbers of sick recovered their health, thanks to the abundant resources and the far-reaching activity of the hospitals and infirmaries in the expedition of 1880-81.

There only now remains to notice the question of the utility of the Red Cross Society with an army in the field as experienced in Trans-Caspia. Its usefulness was undoubted and in this respect no Government organization for aid to the sick and wounded, which in its essence must be always formal, with formal accounts, and with constant dependence on different authorities, can compare with this private society, moreover directed, as must be remarked, by energetic and experienced persons. We have seen that the agents of the Red Cross Society also complained of the insufficient attention paid to their stores by the persons superintending their transport; but these stores arrived at a

* The Bani Hospital had wooden floors to almost all its tents.—*Author*.

time when Government stores were rotting uselessly on the west coast of the Caspian. This shews that they complained personally of the former matter, and wrote letters about the latter, with a view to clearing the official conscience. The great quality and strength of a private association is that each man is personally interested in the work. Government business is conducted by form, and this formality is the natural guarantee of order and the only basis of accounts, without which there would be no bounds to expenditure.

At the end of this volume is given a return of the expenditure in the Akhál-Tekke Expedition of 1880-81, from which it appears that, excluding the expenses caused by the construction of the Trans-Caspian Railway, which was not required for the Expedition, but for consolidating its results, the total cost of the Expedition was 13,545,341 *roubles*.*

* Appendix 105.—*Author*.

APPENDICES.

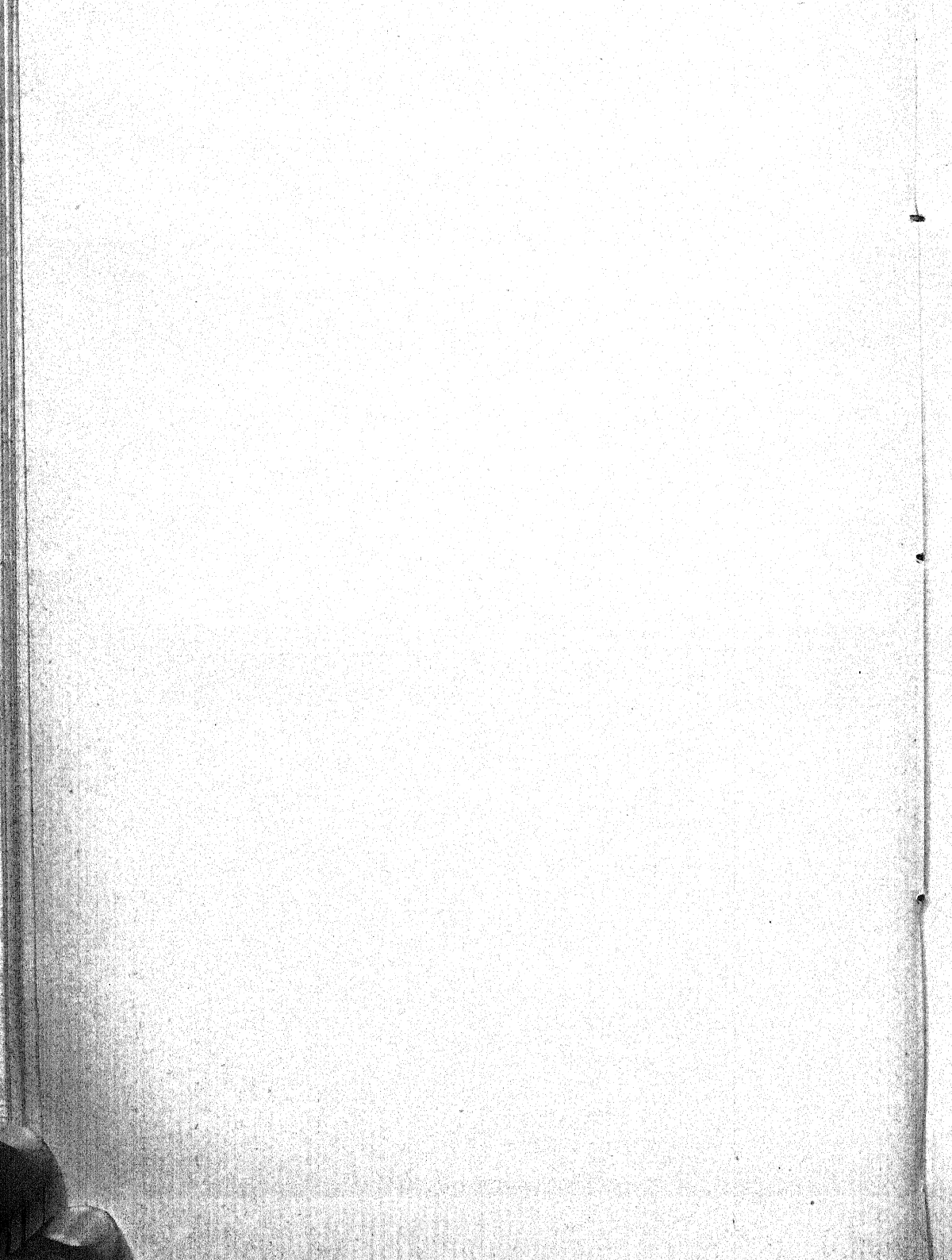


APPENDICES TO CHAPTER XVI.

APPENDIX LXXXII.

RETURN OF THE TROOPS MOVED TO ASKHÁBÁD UP TO THE 17TH (29TH)
JANUARY 1881.

Corps.	Number of companies, <i>Sotnia</i> and guns.	Field Officers.	Officers.	Non-Commissioned Officers.	Buglers and Trumpeters.	Privates.	Non-combatants.	Total.
1st Battalion, Shirván Regiment	4 cos.	...	10	37	8	462	8	525
3rd Battalion, Shirván Regiment	4 „	1	10	27	6	347	...	391
4th Battalion, Daghistán Regiment	4 „	1	16	32	7	302	14	372
Mixed Turkistán Battalion ...	3 „	1	11	40	23	282	12	359
1st Half-Company, 3rd Company, 2nd Caucasus Sapper Battalion.	$\frac{1}{2}$ „	...	2	6	1	42	...	51
4th (Light) Battery, 20th Brigade	8 guns	...	5	6	1	155	8	175
Horse Mountain Division ...	2 „	...	1	1	1	31	...	34
Turkistán Mountain Division ...	2 „	...	2	1	1	20	4	28
Mixed Orenburg Ural Division ...	2 <i>sotnias</i>	2	6	21	5	190	...	224
2nd <i>Sotnia</i> , Poltáva Cossacks ...	1 „	1	5	8	2	87	...	103
2nd <i>Sotnia</i> , 5th Orenburg Cossacks	1 „	1	4	7	3	105	...	120
Division of 15th (Tvar) Dragoons	2 sqdns.	1	6	32	6	200	10	245
Turkistán Rocket Section ...	2 troughs	...	1	1	...	18	...	20
Heliographic Detachment ...	3 stands	...	2	...	...	20	...	22
Total ...	...	8	81	219	64	2,261	56	2,689



APPENDICES TO CHAPTER XVI.

APPENDIX LXXXII.

RETURN OF THE TROOPS MOVED TO ASKHÁBÁD UP TO THE 17TH (29TH)
JANUARY 1881.

Corps.	Number of companies, <i>sotnias</i> and guns.	Field Officers.	Officers.	Non-Commissioned Officers.	Ingles and Trumpeters.	Privates.	Non-combatants.	Total.
1st Battalion, Shirván Regiment	4 cos.	...	10	37	8	462	8	525
3rd Battalion, Shirván Regiment	4 „	1	10	27	6	347	...	391
4th Battalion, Daghistán Regiment	4 „	1	16	32	7	302	14	372
Mixed Turkistán Battalion ...	3 „	1	11	40	23	282	12	359
1st Half-Company, 3rd Company, 2nd Caucasus Sapper Battalion.	$\frac{1}{2}$ „	...	2	6	1	42	...	51
4th (Light) Battery, 20th Brigade	8 guns	...	5	6	1	155	8	175
Horse Mountain Division ...	2 „	...	1	1	1	31	...	34
Turkistán Mountain Division ...	2 „	...	2	1	1	20	4	28
Mixed Orenburg Ural Division ...	2 <i>sotnias</i>	2	6	21	5	190	...	224
2nd <i>Sotnia</i> , Poltáva Cossacks ...	1 „	1	5	8	2	87	...	103
2nd <i>Sotnia</i> , 5th Orenburg Cossacks	1 „	1	4	7	3	105	...	120
Division of 15th (Tvar) Dragoons	2 sqdns.	1	6	32	6	200	10	245
Turkistán Rocket Section ...	2 troughs	...	1	1	...	18	...	20
Heliographic Detachment ...	3 stands	...	2	...	...	20	...	22
Total ...	...	8	81	219	64	2,261	56	2,689

REGULATIONS FOR THE TELEGRAPH LINES AND STATIONS CONSTRUCTED BY THE
MILITARY AUTHORITIES IN TRANS-CASPIA AND DESIGNATED TO BE HANDED
OVER TO THE MINISTRY OF POSTS AND TELEGRAPHS.

(Confirmed by the Commander-in-Chief of the Army of the Caucasus, dated 11th (23rd)
December 1880.)

Section 1. The telegraph lines and stations constructed by the military authorities in Trans-Caspia and intended for the connection of this country with the general telegraphic system of the Empire are placed under the immediate charge of the Ministry of Posts and Telegraphs, and are included in the adjacent Tiflis District.

Section 2. The telegraph lines in Trans-Caspia are to be used for the receipt and despatch of both official and private correspondence.

Section 3. To superintend the correspondence on these lines, and to ensure the uniform execution of orders which may be given as to the stations, in accordance with the military situation in the country, in consequence of the great distance from Tiflis, a special official is to be chosen by the Chief of the Tiflis District from among his subordinates, who is to reside at the place appointed for him. The expenses of his office and the pay due to him by regulation are to be paid on the spot by the military authorities. When this official has to travel on duty, the military authorities will put riding horses at his disposal, and all expenses will be borne by them. An escort will also be given if the military authorities think it necessary.

Section 4. The class of the stations and the *personnel* of each will be fixed according to actual requirements by the telegraph administration. The time the stations are to be open will be determined by the military authorities. In fixing the number of officials for each station, the unfavourable climatic conditions must be taken into consideration, so that the establishment should be somewhat higher than the normal one in other parts of the Empire. At all stations where there is a considerable amount of correspondence, there should always be a 1st class telegraphist who should be able to take over the duties of chief of the station, in the event of the latter falling ill.

Section 5. The posts of chiefs of stations, telegraphists of the first three classes, and mechanics will be held by civil officials of the Telegraph Department, while for those of the 4th class telegraphists, inspectors, watchmen, messengers, and servants for the officials, the military authorities will, in time of war only, detail soldiers, as the Commander of the Troops thinks fit.

Section 6. For the posts of telegraphists and linesmen, soldiers who have served their time will be chosen, preference being given to those who have previously served in Government or Railway telegraphs, or who have learned telegraphy in the military telegraph detachments, and special attention will be paid to their being healthy and intelligent men, with clean defaulters' sheets, and able to read and write perfectly.

Section 7. Soldiers who do not appear capable of fulfilling their duties, or whose conduct is bad, or who have been at any time wrongly chosen for service with the telegraph stations, can be removed from them by the Chief of the Tiflis Telegraph District. They will then return to their regiments and be placed at the disposal of the military authorities.

Section 8. Soldiers will be detailed for the stations of the Trans-Caspian telegraphs by the military authorities, according to the recommendations of the Chief of the Tiflis Telegraph District.

Section 9. In respect of the telegraph service both in the stations and on the works for the repair of the lines, the soldiers will be placed under the immediate orders of the Chief of the Telegraphs, on the same footing as all other persons employed on those lines. For unsatisfactory performance of their duties, soldiers may receive disciplinary punishments or may be removed from the telegraph service. In the event of it being discovered that any mistake has occurred in the transmission of a telegram which may be traced to carelessness on the part of a soldier, that soldier will bear all the responsibility of his mistake according to the general rules and regulations.

Section 10. The pay of civil telegraph officials in Trans-Caspia will be paid out of the sums assigned yearly for the expenses of the telegraph, and the soldiers employed, in addition to the different allowances due to them from the military authorities, will receive from the telegraph administration a daily pay calculated at the rate of half that allowed by regulation for the duties they perform. Provisions and ships' rations, according to regulation, will be issued to all ranks in kind, the telegraph administration refunding to the military administration the cost of the civil officials' rations. The quantity of provisions issued to civil officials will be fixed according to their rank in the hierarchy. In view of the dearth of necessaries in the country, and the difficulties of service in it in time of war and for the whole duration of active operations, ration money will be issued by the military authorities to all civil telegraph officials, in addition to their allowances from the telegraph, at the rate of 1 *ruble* 50 *kopecks* per diem for a superintendent, a chief of a station, or a mechanic, and 1 *ruble* for a telegraphist.

Section 11. When works are being carried on for the construction of new, or the repair of existing lines, soldiers fulfilling the duties of telegraphists and linesmen will receive allowances from the telegraph administration, at the rate fixed for the permanent holders of these appointments.

Section 12. Buildings for telegraph stations and quarters for the soldiers employed will be supplied without payment by the military authorities, in the same way as to other departments of the army.

Section 13. If, at the places where stations are established by the requirements of a time of war, firewood for the stations or for the men's quarters cannot be bought, the military authorities will issue it in kind and in the quantities allowed by regulation. Lighting materials will be provided by the Telegraph Department out of its own funds; but transport for it will be provided by the military authorities.

N.B.—Till Bámi is united with Krásnovodsk, all the stations on the Atrak line will be considered as established by order of the military authorities.

Section 14. All materials required for the maintenance of the telegraph lines and stations, as well as drums of paper ribbons, forms of different kinds, and office stores, will be supplied by the Telegraph Department out of its own funds, and delivered at Baku, whence they will be sent to the east coast of the Caspian and distributed to the stations as military stores, and at the expense of the military budget, according to the instructions given by a telegraph official.

Section 15. The maintenance of the lines and stations is part of the duties of the Telegraph Department, but the military authorities will take all measures to guard them from malicious injury. As at present the stations have been opened according to military necessities, if the troops are withdrawn from any point the telegraph station will be closed also.

Section 16. The military authorities will supply, in time of war only, the transport required for the repair of the lines and stations in Trans-Caspia, as also working parties. If necessary, they will supply such for the lines on the littoral, as also ships. For the purpose of inspecting the lines and conducting their repair, the chiefs of telegraph stations and mechanics receive forage allowance for one horse each.

Section 17. The handing over of lines and stations will be carried out in detail by a person of the military administration appointed for this purpose.

Section 18. On the above conditions are handed over the lines from Chikishliár to Bámi, from Bámi to Kizil-Arvát, and from Mulla-Kári to Krásnovodsk.

APPENDIX LXXXIV.

GENERAL SKOBELEFF'S MEMORANDUM, DATED 21ST FEBRUARY (5TH MARCH) 1881, REGARDING THE PROPOSED FORTIFIED POST AT ASKHÁBÁD.

Having inspected the situation for a fort at Ashkhabad and the project for its construction laid before me by Lieutenant-Colonel Rutkovski, I find—

(1) The situation is very well chosen from a military point of view; but it requires the opinion of a medical officer, because it is specially important to determine the advantages of the hill from a sanitary point of view.

(2) I leave the dimensions of the fort without change; but I think it necessary to include within the limits of the glacis the gardens lying near the east front to a distance of 100 paces.

(3) Before the works begin, we should convince ourselves whether it is possible to sink wells, without which a fort is untenable in Central Asia. Experiments are to be at once made.

(4) Cultivated land is to be enclosed for kitchen gardens for 3,000 men. I think 108 acres will be sufficient.

(5) One thousand workmen are to be brought from Persia.

Ashkhabad;
21st February (5th March), 1881. }

(Sd.) SKOBELEFF,
General and Aide-de-Camp.

APPENDIX LXXXV.

TEMPORARY ESTABLISHMENT OF THE ADMINISTRATIVE STAFF OF THE TRANS-CASPIAN PROVINCE, CONFIRMED BY HIS IMPERIAL HIGHNESS THE COMMANDER-IN-CHIEF OF THE ARMY OF THE CAUCASUS, DATED 11TH (23RD) JUNE 1881.

Rank.	No.	Yearly scale of pay of each.	
		<i>Roubles.</i>	<i>Kopecks.</i>
Chief of the Province and Commander of the Troops in it ...	1	17,000	0
		(including 5,000 <i>roubles</i> for extraordinary expenses, and 2,000 for travelling allowance).	
PROVINCIAL STAFF.			
Chief of the Staff	1	6,000	0
1ST SECTION.			
Chief of the Section (inspection and combatant services) ...	1	3,000	0
Assistants to ditto	2	1,500	0
2ND SECTION.			
Superintendent of the Intendence in the Province ...	1	3,000	0
Assistants to ditto	3	1,500	0
3RD SECTION.			
Inspector of Artillery in the Province	1	3,000	0
Assistants to ditto	2	1,500	0
4TH SECTION.			
Inspector of Engineers in the Province	1	3,000	0
Assistants to ditto	2	1,500	0
Conductors	3	230	0
5TH SECTION.			
Inspector of the Medical Department in the Province ...	1	1,000	0
6TH SECTION.			
Chief of the Civil Service	1	3,000	0
Assistants to ditto	3	1,500	0
Book-keeper	1	1,500	0
Assistant Book-keeper	1	1,300	0

Section 15. The maintenance of the lines and stations is part of the duties of the Telegraph Department, but the military authorities will take all measures to guard them from malicious injury. As at present the stations have been opened according to military necessities, if the troops are withdrawn from any point the telegraph station will be closed also.

Section 16. The military authorities will supply, in time of war only, the transport required for the repair of the lines and stations in Trans-Caspia, as also working parties. If necessary, they will supply such for the lines on the littoral, as also ships. For the purpose of inspecting the lines and conducting their repair, the chiefs of telegraph stations and mechanics receive forage allowance for one horse each.

Section 17. The handing over of lines and stations will be carried out in detail by a person of the military administration appointed for this purpose.

Section 18. On the above conditions are handed over the lines from Chikishliár to Bámi, from Bámi to Kizil-Arvát, and from Mulla-Kári to Krásnovodsk.

APPENDIX LXXXIV.

GENERAL SKOBELEFF'S MEMORANDUM, DATED 21ST FEBRUARY (5TH MARCH) 1881, REGARDING THE PROPOSED FORTIFIED POST AT ASKHÁBÁD.

Having inspected the situation for a fort at Askhábád and the project for its construction laid before me by Lieutenant-Colonel Rutkovski, I find—

(1) The situation is very well chosen from a military point of view; but it requires the opinion of a medical officer, because it is specially important to determine the advantages of the hill from a sanitary point of view.

(2) I leave the dimensions of the fort without change; but I think it necessary to include within the limits of the glacis the gardens lying near the east front to a distance of 100 paces.

(3) Before the works begin, we should convince ourselves whether it is possible to sink wells, without which a fort is untenable in Central Asia. Experiments are to be at once made.

(4) Cultivated land is to be enclosed for kitchen gardens for 3,000 men. I think 108 acres will be sufficient.

(5) One thousand workmen are to be brought from Persia.

Askhábád;
21st February (5th March), 1881. }

(Sd.) SKOBELEFF,
General and Aide-de-Camp.

APPENDIX LXXXV.

TEMPORARY ESTABLISHMENT OF THE ADMINISTRATIVE STAFF OF THE TRANS-CASPIAN PROVINCE, CONFIRMED BY HIS IMPERIAL HIGHNESS THE COMMANDER-IN-CHIEF OF THE ARMY OF THE CAUCASUS, DATED 11TH (23RD) JUNE 1881.

Rank.	No.	Yearly scale of pay of each.	
		<i>Roubles.</i>	<i>Kopecks.</i>
Chief of the Province and Commander of the Troops in it ...	1	17,000	0
		(including 5,000 <i>roubles</i> for extraordinary expenses, and 2,000 for travelling allowance).	
PROVINCIAL STAFF.			
Chief of the Staff	1	6,000	0
1ST SECTION.			
Chief of the Section (inspection and combatant services) ...	1	3,000	0
Assistants to ditto	2	1,500	0
2ND SECTION.			
Superintendent of the Intendance in the Province ...	1	3,000	0
Assistants to ditto	3	1,500	0
3RD SECTION.			
Inspector of Artillery in the Province	1	3,000	0
Assistants to ditto	2	1,500	0
4TH SECTION.			
Inspector of Engineers in the Province	1	3,000	0
Assistants to ditto	2	1,500	0
Conductors	3	230	0
5TH SECTION.			
Inspector of the Medical Department in the Province ...	1	1,000	0
6TH SECTION.			
Chief of the Civil Service	1	3,000	0
Assistants to ditto	3	1,500	0
Book-keeper	1	1,500	0
Assistant Book-keeper	1	1,300	0

Temporary Establishment of the Administrative Staff of the Trans-Caspian Province—contd.

Rank.	No.	Yearly scale of pay of each.	
		<i>Roubles.</i>	<i>Kopecks.</i>
<i>For General Duty with the Staff.</i>			
Field Officers of the General Staff	2	2,000	0
Other Officers (1 of the Engineers and 1 of the General Staff)	3	1,200	0
Civil and Intendance Officials	3	1,200	0
Translator	1	1,000	0
Interpreters	2	500	0
Clerks { 2nd class	10	48	90
{ 3rd class	12	32	70
Watchmen	3	5	25
For office allowance, forms, charges for telegrams, supply of furniture, heating and lighting of buildings ... ..	...	4,000	0
For travelling expenses of officials, &c. ... ..	...	4,000	0
Total ... ..	...	84,587	45
<i>Administration of the Akhāl-Tekke District.</i>			
Chief of the District	1	6,000	0
		(1,000 roubles for extraordinary, and 1,000 for travelling, expenses).	
Assistants to ditto	2	2,000	0
Secretaries	2	1,500	0
Translator	1	800	0
Interpreter	1	400	0
District Surgeon	1	2,000	0
Hospital Dressers	2	500	0
For office allowance, hire of writers, messengers, and watchmen ... ..	...	1,500	0
Rent of buildings, heating and lighting ... ..	...	800	0
Total ... ..	...	19,500	0
<i>Administration of the Krásnovodsk Prefecture.</i>			
Prefect	1	4,000	0
		(including 500 roubles for extraordinary, and 500 for travelling, expenses).	
Assistant to the Prefect	1	2,000	0
Clerk	1	800	0
Native for special duty	1	360	0
Extra allowance to a Surgeon requested to give medical assistance to the natives ... ..	...	200	0
Hire of Interpreters ... ..	...	800	0
Hire of writers ... ..	...	480	0
Office allowance, repairs of furniture, &c. ... ..	...	300	0
Rent of buildings, heating, and lighting ... ..	...	600	0
Hire of a watchman, and messengers ... ..	...	720	0
Total ... ..	...	10,260	0

Temporary Establishment of the Administrative Staff of the Trans-Caspian Province—concl'd.

Rank.				No.	Yearly scale of pay of each.	
					Roubles.	Kopecks.
<i>Administration of the Mangishlak Prefecture.</i>						
Establishment as in the Krásnovodsk Prefecture	...	...	...	...	10,260	0
<i>Postal Service of the Province.</i>						
Inspector of posts and railways	...	...	...	1	2,000	0
Clerk	...	...	...	1	1,000	0
Couriers	...	...	...	2	800	0
Sorters	...	...	...	2	720	0
Postmen	...	...	...	2	540	0
Office allowance	...	...	...	...	250	0
Total				...	7,370	0
<i>Additional Allowances.</i>						
For Intendance Supply-Depôts	...	...	...	...	12,000	0
Two treasuries	...	...	...	...	10,000	0
Control	...	...	...	...	6,000	0
Telegraph	...	...	...	...	3,000	0
Grand total				...	162,977	45

APPENDIX LXXXVI.

RETURN OF THE TROOPS REMAINING IN TRANS-CASPIA ON THE DEPARTURE OF
GENERAL SKOBELEFF IN THE END OF APRIL 1881.

	Officers.	Men.
Stávropol Regiment	41	1,922
Caucasian Regiment	44	1,980
3rd Company 2nd Caucasus Sapper Battalion	5	160
1st Reserve Railway Battalion	10	844
Krásnovodsk Local Battalion	20	860
Taman Cossack Regiment	20	670
Lába Cossack Regiment (2nd <i>Sotnia</i>)	3	214
4th Battery, 19th Brigade	3	188
6th Battery, 21st Brigade	6	160
3rd Company Gunib Fortress Artillery...	3	400
Total	*155	7,398*

* This may be taken to have been the *normal* garrison of the Trans-Caspian Province before the annexation of Merv and another period of forward movements.—*W. E. G.*

APPENDIX LXXXVII.

RETURN OF ARTILLERY STORES IN TRANS-CASPIA.

Stations.	Guns.				Rounds of Artillery Ammunition.					Rifles.				Rifle Ammunition.						Mitrallense cartridges.					
	9-pr.	4-pr.	18-lb. Mortars.	18-lb. Shells.	3-pr.	4-pr.	9-pr.	18-lb. Shells.	Long-range new	Revolvers.	Infantry Berdan.	Krinka.	7-Grooved.	Other kinds.	Infantry Rifle.	Cavalry Rifle.	Karle.	Krinka.	Revolver.		Peabody.	Rock-et-troughs.	War rockets.	Mitrallenses.	
Askhabád	...	1812	...	1,528	1,706	3,879	...	2,154	47	...	...	...	...	...	...	2,099,584	377,126	877	1,308	7,150	...	23	262	1	4,575
Dangil-Tapa	...	6	4	392	...	...	1,495	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Durun	...	1	...	...	...	69	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arohmán	...	1	...	...	...	131	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bémi	...	6	...	...	53	1,295	...	71	...	...	9	31	...	115	...	233,770	...	54,400	...	900	...	...	782	1	4,700
Kizil-Arvát	...	3	...	...	...	230	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazánjik	...	1	...	...	...	88	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Krásnovodsk	...	3	...	...	...	966	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chikislár	...	2	...	...	265	187	68	14	...	...	299	2213	98	...	...	466,250	25,990	43,800	59,120	1,736	10,191	4	325	2	9,400
Chát	26	145	...	...	...	...	...	...	45	...	...	300	22,000	...	...	...	...	...	480	1	4,600
Duz-Olum	504	36	...	...	...	...	...	...	...	...	112,030	39,580	...	18,435	...	6,390	...	67	1	4,600
Khwája-Kala	100	...	594	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	83516	1,599	2,020	1,997	8,083	...	2,239	47	...	308	2244	143	115	...	2,911,894	474,696	99,077	78,863	9,786	16,580	271,916	8	37,150	...
On the way from Bála Ischem to Askhabád...	2,220	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX LXXXVIII.

RETURN OF ENGINEER STORES IN TRANS-CASPIA.

Articles.	Delivered at Chikishlar.	Delivered at Bami.	Delivered to the Siege Corps be- fore Gok-Tapa.	Delivered at Ashabad.	Lost or expend- ed.	Remaining in Trans-Caspia
Shovels	1,500	1,380	1,250	740	741	1,259
Hoes with picks	596	357	506	213	298	488
Ordinary hoes	249	249	249	105	...	249
Ordinary pickaxes	355	355	355	220	61	355
Axes	...	350	475	178	175	...
Crowbars	100	70	100	70	...	...
Ordinary saws	10	10	10	10	...	10
Cross-cut saws	10	10	10	7	...	7
Circular saws	10	10	10	8	...	8
Half-round files	12	12	12	12	12	12
Circular files	12	12	12	12	12	12
Triangular files	12	12	12	12	12	12
Large wedges	3	3	3	1	...	1
Small wedges	3	3	3	1	...	1
Chisels	12	12	6	3	...	9
Augers	12	12	12	3	...	3
Gimlets	12	12	6	3	...	3
Centrebits with bits	3	3	3	2	...	2
Ordinary trying-planes	5	5	4	3	...	4
Double trying-planes	5	5	5	3	...	3
Shears	5	5	4	2	...	3
Hammers, small	12	12	6	3	...	9
Pairs of compasses	5	5	4	2	...	3
Choppers	5	5	3	1	...	3
Turnscrews	5	5	5	5	...	5
Squares	3	3	1	...	...	2
Field levels	3	3	...	...	...	3
Whetstones	12	12	...	...	...	12
Paring chisels	12	12	12	5	...	5
Pincers	5	5	5	4	...	4
Drills, 3-foot	5	5	5	5	...	5
Drills, 2-foot	5	5	5	3	...	3
Ladles, 3-foot	5	5	5	5	...	5
Ladles, 2-foot	5	5	5	4	...	4
Rammers, 4-foot	5	5	5	5	...	4
Rammers, 2-foot	5	5	5	5	...	5
Copper needles	10	10	10	10	...	10
Primers	5	5	5	5	...	5
Hammers, 10-pound	5	5	5	4	...	4
Hammers, 5 pound	5	5	5	3	...	3
Rope	feet 630	630	630	630	...	630
Tarpaulins	2	2	2	2	...	2
Copper lanterns	5	5	5	4	1	4
Large grindstone	1	1	...	...	...	1
Small grindstones	2	2	2	2	...	2
Field forge	1	1	1	1	...	1
Saw-files	3	3	3	1	...	1
Hammers	5	5	5	3	...	3
Scrapers	6	6	3	1	...	4
Rasps	3	3	3	3	...	3
Pincers	3	3	3	2	...	2
Screwplates	2	2	...	...	...	2
Anvil	1	1	1	1	...	1

Return of Engineer Stores in Trans-Caspia—contd.

Articles.	Delivered at Chukishliar.	Delivered at Bani.	Delivered to the Siberian Corps be- fore Gok-Taya.	Delivered at Ashkhabad.	Lost or expend- ed.	Remaining in Trans-Caspia.
Vice	1	1	1	1	...	1
Clippers	2	2	2	2	...	2
Scissors	1	1	1	1	...	1
Nail tools	2	2	2	2	...	2
Mariners' compasses	2	2	2	2	...	2
Resin in bars	1·8 lbs.	1·8 lbs.	1·8 lbs.	1·8 lbs.	...	1·8 lbs.
Mortar	1·8 "	1·8 "	1·8 "	1·8 "	1·8 lbs.	...
Cork	·45 "	·45 "	·45 "	·45 "	...	·45 lbs.
Glass bottles	2	2	2	2	...	2
Sulphuric acid	1·8 lbs.	1·8 lbs.	1·8 lbs.	1·8 lbs.	1·8 lbs.	...
Hemp	·45 "	·45 "	·45 "	·45 "	...	·45 lbs.
Cotton yarn	·45 "	·45 "	·45 "	·45 "	...	·45 "
Dutch thread	·9 "	·9 "	·9 "	·9 "	·9 lbs.	...
Sal ammoniac	36·1 "	36·1 "	36·1 "	18 lbs.	18 "	18 lbs.
Blunt-pointed nippers	1	1	1	...	1	...
Round-pointed nippers	1	1	1	...	1	...
Scissors	1	1	1	...	1	...
Kniv's with rings	2	2	2	...	...	...
Box for instruments	1	1	1	...	1	...
Daniel's element	...	...	...	...	...	...
Zinc plates.	400	400	400	300	100	300
Stand for test battery	1	1	1	1	...	1
Copper solution	·9 lbs.	·9 lbs.	·9 lbs.	·4·5 lbs.	·4·5 lbs.	·4·5 lbs.
Pieces of card-board	1,700	1,700	1,700	1,600	100	1,600
Cast-iron pots	2	2	2	...	2	...
Iron ladles	1	1	1	1	...	1
Copperplates	300	300	300	200	100	200
Terminal plates	6	6	6	6	...	6
Copper cartridge cases	4	4	4	...	4	...
Box for galvanic battery	1	1	1	1	...	1
Pasteboard	10 sheets	10 sheets	10 sheets	10 sheets	...	10 sheets.
Iron axles for drums	2	2	2	2	...	2
Isolated cable	3,500 ft.	3,500 ft.	3,500 ft.	1,916 ft.	1,484 ft.	1,916 ft.
Iron drums	2	2	2	2	...	2
Pitch	36·1 lbs.	36·1 lbs.	36·1 lbs.	27 lbs.	9 lbs.	27 lbs.
Wooden cups	2	2	2	...	2	...
Packing cloth	7 ft.	7 ft.	7 ft.	...	7 ft.	...
Goniometer	1	1	1	1	...	1
Ventilator	1	1	1	1	...	1
Ventilating tubes	3	3	3	3	...	3
Guttapercha tubes	3	3	3	3	...	3
Boxes of dynamite	17	17	17	8	9	8
Boxes of detonators	1	1	1	1	1,000	1
Bickford's fuze	3 boxes	3 boxes	3 boxes	3 boxes	210 ft.	3 boxes
Gunpowder	48 cwt.	48	48	...	48	...
Cork fuzes	50	50	50	20	30	20
Drivers' fuzes	150	150	150	...	150	...
Magneto-electric machine	1	1	1	1	...	1

POGOSSKI, *Sub-Lieut.*,
Inspector of Engineers' Stores.

RUTKOVSKI, *Lient.-Col.*,
Inspector of Engineers.

APPENDIX LXXXIX.

RETURN OF PROVISIONS, SHIPS' RATIONS AND FORAGE IN THE SUPPLY-DEPÔTS
OF TRANS-CASPIA ON THE 1ST (13TH) MAY 1881.

Rye flour	...	...	27,580 cwt.
Biscuit and cakes	...	...	14,180 "
Buckwheat groats	...	...	8,160 "
Rice groats	...	...	3,712 "
Oats	...	...	85,440 "
Hay	...	...	30,400 "
Tea	...	...	129.6 "
Sugar	...	...	1,216 "
<i>Ghi</i>	...	...	800 "
Wheat flour	...	...	4,160 "
Salt	...	...	1,600 "
Spirits	...	...	837 gallons.

N. BATIEN, *Lieut.*,
Acting Intendant.

APPENDIX XC.

LIST OF THE SETTLEMENTS OF THE AKHÁL-TEKKE *oasis*, WITH THE NAMES OF
THEIR ELDERS AND THE NUMBER OF *kibitkas* IN EACH, DATED 14TH (26TH)
APRIL 1881.

No.	Names of settlements.	No. of <i>kibitkas</i> .	Names of Elders.
1	Kizil-Arvát	350	Khudai-Verdi-Khán.
2	Bámi	150	Muhammad-Kuli-Khán.
3	Burma	200	Taghma-Sirdár.
4	Archmán	200	Nur-Muhammad-Sirdár.
5	Suncha	40	Beki.
6	Murcha	20	Vali-Yuzbáshi.
7	Begerden	155	Oráz-Murád-Usta.
8	Durun	60	Muhammad-Turtubai.
9	Karagán	55	Bába-Sári.
10	Akh-Tapa	150	Archa-Sirdár.
11	Kaláta-Megin	250	Ishmak-Bai.
12	Yaráji	300	Ana.

List of the Settlements of the Akhál-Tekke oasis—contd.

No.	Names of settlements.	No. of <i>kibitkas</i> .	Names of Elders.
13	Gok-Tapa, No. 1	350	Aman-Atali.
	Gok-Tapa, No. 2	300	Haji-Murad-Bagáji-Kovshok.
	Gok-Tapa, No. 3	285	Pudak.
14	Nova	25	Ata-Karobe-Ogli.
15	Akhál	90	Kurbaño.
16	Kokhshil	150	Khal-Sagát.
17	Bukiri	80	Ana-Oráz-Khán.
18	Kanjik	200	Dovat-Khán.
19	Tiulki-Yábi	128	Ataguli.
20	Gumbetli	200	Oráz-Soyunt-Bai.
21	Izgand	150	Durdi-Dov.
22	Shor-Kala	75	Oráz-Khán.
23	Kelyajár	68	Muhammad-Niáz.
24	Korjov	50	Daulat-Murád-Khán.
25	Bezmein-Liár	350	Evasguli-Sirdár.
26	Yasmán-Salik	350	Wafadár-Khán.
27	Gerrik-Kala	325	Sagat-Murád.
28	Kipchák	200	Murád-Khán.
29	Gokhcha	200	Báshim-Kel.
30	Bagír	70	Amán-Kuli-Khán.
31	Keshi	300	Tutnuk.
32	Askhabád	50	Koshulesbei.
33	Annau	200	Subkhán-Berdi.
34	Gávares	20	Ana-Khán.
35	Mahtum-Julga (beyond Band-Hassan)	100	Shaule-Mahtum.
36	Near Askhabád, returning from Marv various settlements.	380	
37	Nomadizing in the steppe	1,800	
	Total	8,876	

The inhabitants of Akhál are divided into four principal tribes,—the Wakil, Sichmáz, Bakhshi-Dasháyak, and Bek.

The Wakil tribe occupies—Kizil-Arvát, Durun, Karagán, Akh-Tapa, Kaláta-Megin, Bukiri, Kokhshál, Kanjik, Tulki-Yábi, and Izgand.

The Sichmáz tribe occupies—Burma, Yaráji, and Gok-Tapa.

The Bakhshi-Dasháyak tribe occupies—Archmán, Suncha, Murcha, Begerden, Yasmán-Salik, Bezmein-Liár, Gerrik-Kala, and Annau.

The Bek tribe occupies—Bámi, Nova, Akhál, Gumbetli, Shor-Kala, Kilyajár, Korjov, Kipchák, Gokhcha, Bagír, Keshi, Askhabád, and Gávares.

SPOLATBOG, Major,
Supdt. of the population of the Akhál-Tekke oasis.

MURÁVIEFF, Lieut.,
Secretary.

APPENDICES TO CHAPTER XVIII.

APPENDIX XCI.

PROJECT OF THE IMPERIAL CONTROLLER, AND INSTRUCTIONS FOR THE CONTROL DEPARTMENT WITH THE TRANS-CASPIAN FIELD FORCE.

The original is signed :—

“APPROVED BY THE EMPEROR.”—*St. Petersburg, dated 5th (17th May) 1880.*—
D. SOLSKI, *State-Secretary.*

His Imperial Highness the Viceroy of the Caucasus has thought fit to express to me personally his will on the subject of the establishment for the troops about to be employed in Trans-Caspia of a Field Control similar to that which existed during the past wars on the Danube and in the Caucasus.

Recognizing the utility of a Field Control with the Trans-Caspian Expedition, I laid before His Imperial Highness the basis on which it would be possible to establish such a control. Afterwards, on receipt of the consent of the Grand Duke to my proposals, I communicated them to the Ministers of War and Finance, who, on their part, also agreed with them.

The fundamental principles approved of by His Imperial Highness for the establishment of a Field Control with the Trans-Caspian Field Force are as follows :—

1. This Control is established on the basis of the temporary regulations for the Field Control, published by authority on the 21st February (5th March) 1877, with the following exceptions :—

2. It consists of a Chief Controller in charge, two Controllers and three Assistant Controllers. The number of Controllers and their assistants may be changed, as required, by the Imperial Controller with the consent of the Commander-in-Chief of the Army of the Caucasus.

3. The classes and rank in the hierarchy and the scales of pay and allowances of the officials of the Field Control will be as laid down below :—

4. The pay of the Field Control is borne out of the funds placed at the disposal of His Imperial Highness the Commander-in-Chief of the Army of the Caucasus for military expenses in Trans-Caspia.

5. In their operations, the officials of the Field Control will be guided by the rules confirmed by authority on the 21st February (5th March) 1877, for the Field Control with a detached army corps, the regulations for the Chief Controller of a Corps being applicable to the Chief Controller of the Trans-Caspian Force, and those for a Chief Controller to the Controllers.

6. The sphere of action of the Field Control and its relations with the military authorities will be fixed in detail by special instructions which will be issued by the Imperial Controller with the consent of the Commander-in-Chief of the Army of the Caucasus. The Commander of the troops in Trans-Caspia may make such partial changes in these regulations as he sees fit, reporting such to the Commander-in-Chief and the Imperial Controller.

In presenting these proposals to the gracious consideration of your Imperial Majesty, I have the honour to solicit your Majesty's permission for them to be brought into operation.

H. D. SOLSKI,
State-Secretary.

Return of the rank of the officials and the pay of the several grades of the Field Control of the Trans-Caspian Field Force.

Rank, &c.	Class in hierarchy.	SCALES.		PAY OF EACH.		
		For pension.	For rations.	Pay.	Table money.	Total.
Chief Controller in charge of Field Control with the rights of a Corps Controller	V	III	4	3,000	2,000	5,000
Controller	VI	III	6	1,500	1,000	2,500
Assistant Controller	VIII	VI	8	700	500	1,200
Hire of writers and watchmen, office allowance, and disposal of Chief Controller, 200 roubles a month ...	...	...	...	...	...	2,400

Note.—Everything contained in notes 2, 3, 5, 6 and 7 of the Regulations for the Field Control, approved of on 21st February (5th March) 1877, applies to the Field Control with the Trans-Caspian Field Force, except that persons not having corresponding rank may be entrusted with the duties of Controllers and Assistant Controllers.

INSTRUCTIONS FOR THE CONTROL DEPARTMENT WITH THE TRANS-CASPIAN
FIELD FORCE.

The original is signed by the Emperor as follows:—

“AS AGREED TO WITH HIS IMPERIAL HIGHNESS THE COMMANDER-IN-CHIEF OF THE ARMY OF THE CAUCASUS, I CONFIRM.”—*St. Petersburg, 5th (17th) May 1880.*—*The Imperial Controller, State-Secretary, D. SOLSKI.*

Section 1. The Field Control established for the Trans-Caspian Field Force, in accordance with Imperial orders of 5th (17th) May 1880, is guided in its operations by the regulations approved of by authority on the 21st February (5th March) 1877 for the Field Control, and the following regulations are to be observed.

Section 2. The Chief of the Field Control with the Trans-Caspian Field Force is a Chief Controller, and the Department consists of Controllers and Assistant Controllers. The rights and duties of these officials are fixed by the regulations of the 21st February (5th March) 1877, those laid down for the Chief Controller of a corps applying to the Chief Controller of the Trans-Caspian Field Force, those for Chief Controllers to the Controllers, and those for Controllers to the Assistant Controllers of the Force; the latter, however, by direction of the Chief Controller, may be given powers of independent inspection when circumstances render it necessary.

Section 3. By section 8 of the Field Control Regulations, the presence of officials of the Control at all auctions of contracts for the furnishing of supplies for the troops is obligatory. The heads of departments will therefore inform the Chief Controller in good time as to when these auctions are to take place, forwarding to him at the same time a copy of the conditions on which it is proposed to make the contracts, and on the contracts being signed they will at once inform him of the result.

In the event of contracts being concluded without being put up to auction, heads of departments will inform the Chief Controller, enclosing a copy and stating the motives for the choice of this mode of furnishing supplies,

so as to enable him to make his remarks on the mode chosen or on the conditions of the contract.

When assisting at auctions of contracts, the officials of the Field Control will be guided by the Regulations for supply confirmed by authority on the 26th April (8th May) 1875, paragraphs 29 to 58, issued with Army Circular No. 123, 1875.

Section 4. According to section 9 of the Regulations for the Field Control, the Control is entrusted with the verification of the accounts of the field treasure chests, and the departments and establishments of the Military Administration, and also with those of the Postal, Railway, and Telegraph Departments.

In pursuance, therefore, of the orders for the verification of the accounts of the permanent and temporary special treasuries of the depôts, magazines, and other establishments, and of the construction and working departments of the Postal, Railway, and Telegraph Administrations, the heads of those departments will put themselves in communication with the Chief Controller. Afterwards, as establishments are opened or works are begun, they will again inform the Chief Controller of the fact, stating what persons the Control officials are to inform of irregularities or malpractices discovered with a view to measures at once being taken for their correction (Regulation for Field Control, Sections 19 and 20), and where such persons reside.

N.B.—These persons are to be chosen, if there is no Commandant at the station, from amongst the Commanding Officers of troops stationed permanently in the same place as the establishment or works to be inspected; and, if the troops move, heads of departments will nominate senior officials of their own department to the charge of a certain district for this purpose.

Section 5. In accordance with sections 13 and 15 of the Field Control Regulations, the inspection of supply-depôts, &c., is carried on in the presence of their Superintendents and of a representative of the military authorities; in the event of the inspection of such stores (ammunition, laboratory stores, &c.) as require specialists to be appointed, the officials of the Field Control may ask for persons acquainted with the construction and nature of these stores to be detailed to assist in the inspection by the respective departments. In case of such a person being required, the Control officials are to apply—
(a) for a representative of the military authorities to the senior officer at the place where the inspection is to take place, the Military Commandant, or his Staff; if there are neither troops nor Military Departments at the place, the officials of the Field Control may carry out their inspections in the presence of the Superintendents of the magazines only, and in the case of military hospitals, in the presence of all the members of the Hospital Committee, without a special deputy being chosen, but the reason of this procedure is always to be stated in their inspection report or in the books of the magazine or hospital;
(b) for a specialist member, application is to be made to the senior officer of the arm of the service concerned, on the spot, if he is not at the same time the person in charge of the stores to be inspected. In the latter case, application will be made to the senior officer of the arm of the service concerned, not directly under the last named; if no such person is on the spot, application will be made to the head of the department with the force.

Section 6. Controllers, on proceeding to the inspection of a magazine or depôt, will first present to its Superintendent the instructions from the

Commander of the troops in Trans-Caspia or the Chief of his Staff (Field Control Regulations, section 17), and will then at once put their seal on the magazine or dépôt, if this measure of precaution be considered necessary and possible (Code of Military Law, 1869; Book XII, Chapter 35, and Appendix to Chapter 206, section 1).

N.B.—On proceeding to inspect, Controllers will take great care that their inspection does not cause any delay in the work of the magazine, &c., or in the receipt and issue of stores.

Section 7. Controllers will next demand from the Superintendent, lists of all the stores actually in the magazine or other establishments (if the list be not too long a one) on the day of the inspection, or of those stores only which are to be specially inspected (Code of Military Law, 1869; Book XII, Chapter 66, Appendix to Chapter 206, section 1; and Book XIII, Chapter 237).

Section 8. In carrying out their inspection of a magazine, Controllers will pay special attention to the following points:—

- (a) Is Government property kept in proper order, and are all proper measures taken for its preservation?—(Code of Military Law, 1869; Book XII, Chapter 206, Appendix to sections 3 and 6; Book XIII, Chapter 222—225; and special instructions issued by the Control Intendance on Book XII, Chapter 175).
- (b) What is the quantity, weight, and measure of Government property in charge?—(as above; and Field Control Regulations, sections 8 and 12).
- (c) Is all Government property serviceable?—(Code of Military Law, 1869; Book XII, Chapters 20, 138—44; Book XIII, Chapter 223; and Field Control Regulations, sections 8, M, D.).
- (d) Are the scales, weights, *sájen* and *arshin* measures, &c., in the magazines all correct?—(Code of Military Law, 1869; Book XII, Chapter 32).
- (e) Has an unexpected or periodical inspection of the Government property been made by the authorized personages of the Military Administration; and if so, when, and by whom?—(Code of Military Law; Book XII, Chapters 267 and 268; Book XIII, Chapter 237; and Field Control Regulations, note to section 9).

Section 9. At the end of the actual inspection, Controllers and their assistants will verify the receipt and issue accounts in the original, and also the books connected with them, and on comparing the accounts with the results of their previous inspection, they will convince themselves whether the stores actually on hand correspond in quantity, measure, and weight with those shown, as on hand in the books (Code of Military Law, 1869; Book XII, Chapter 66, and Appendix to Chapter 206, sections 1 and 2; Book XIII, Chapter 237; and Field Control Regulations, section 16). The Controllers will make a short note in the store ledger of the result of this inspection; in the event of a report being drawn up on the inspection, the number of this report will be inserted (Field Control Regulations, section 18).

Section 10. If at the inspection a surplus of stores on hand is found, such surplus will be entered by the Controller as a receipt of Government property (Code of Military Law, 1869; Book XII, Chapters 29 and 172).

The stores mentioned in Book XII, Chapter 172, and prepared by Superintendents to meet losses from waste or the depredations of vermin, are only to be received and kept in magazines on the special orders in each case of the head of the department concerned; such stores should be entered in special ledgers issued by the Intendance and may be inspected by the Controller in the same way as the others, the result being entered in the ledger. Stores

not entered in those ledgers and found in the magazine without orders are to be entered as Government property.

Section 11. The military field treasure chests and the special treasuries (telegraph stations and post offices) are to be inspected according to the regulations laid down for unexpected inspections by the Minister of Finance and of special treasuries in the interior of the empire (Instructions for Government and district treasuries, 1878, Chapters 103—21, Rules for receipts, issues, and accounts of special treasuries, section 70; and Field Control Regulations, section 11).

On the inspection of post offices, besides verifying the treasure chest, the Control officials will take particular note of the number of unissued or non-despatched packets, money orders, letters, or Government parcels, and will demand explanations of the reasons why such were not issued or forwarded to their destination.

Section 12. Besides suddenly inspecting all Government magazines, establishments, &c., the officials of the Field Control have the following duties:—

1. Issue of money to the troops:

They will ascertain, actually and according to the documents of the troops and field treasuries, whether the troops regularly receive the money due to them for pay, rations, forage and firewood, and, in the event of complaints from the troops of unpunctual receipt of such, will make enquiries into the causes of the delay on the basis of the reports made by the troops.

2. Supply of the troops:

- a. They will be present, when it is considered necessary, at the receipt of supplies from contractors, or when supplies prepared in other places are being unloaded from steamers, barges or convoys and taken to the magazines, and also at the issue to the troops of provisions and stores from the magazines, stores, or convoys.
- b. They will ascertain on the spot whether the troops are provided with the amount of biscuit, groats, &c., specified in General Orders. If they are not so provided, the Controllers will ascertain the causes of this and all the circumstances connected with the deficiency.
- c. They will ascertain whether the general (Intendance) transport attached to each corps has the full quantity of military stores required for the reserve for the corps for the period laid down, whether the quality of the stores in the Intendance transport is good, how the provisions issued are to be replaced, and whether it will be possible to replace them, *i.e.*, whether there are magazines formed specially for the supply of the troops, and whether these contain all that is required.

N.B.—To facilitate the superintendence of the supply of the troops by the Field Control, the Superintendents of supply-dépôts have to submit twice a month [on the 1st (13th) and 15th (27th)] to the Chief Controller, statements of the receipts, issues, and actual contents of their magazines.

3. Maintaining convoys and superintending their service:

The officials of the Field Control superintend the movements of the Intendance, artillery, and other convoys, and inspect them on starting on the

march and on arrival at their destination, paying special attention to the following points:—

- a. Have the Commanders of the convoys in their possession, and do they regularly keep up their store (receipt and issue) ledgers, daily journal (of losses or additions of camels and horses), lists of camel-drivers and wagoners, and issue books for pay, supplies, and forage, &c.?
- b. Do the stores entered in their books correspond with the number of men, and with the number of camels and horses and the loads carried on them?
- c. Is the quality of the stores good?
- d. Are the horses, camels, harness, pack-saddles, carts, &c., in satisfactory condition?
- e. Do the means of transport (in number and quality) correspond to actual needs?

N.B.—Departments at whose disposal transport is placed, immediately on the plan of transport movements being drawn up and instructions given on this subject, will send to the Chief Controller a copy of these plans and instructions, and will also forward to him twice a month [on the 1st (13th) and 15th (27th)] lists of the strength and distribution of the convoys. The Commanders of convoys on receiving their way-bills are at once to inform the local Control official, and they will also inform him of their arrival at their destination at such a time as to enable him, if he considers it necessary, to inspect the convoy and the stores brought by it.

4. Inspecting divisional and regimental hospitals :

In addition to the actual inspection of military hospitals laid down by regulations, the Control officials are to inspect divisional hospitals to ascertain whether the food supplied to the sick is of proper quality and in accordance with the tables of rations appended to Chapter 444, Book XVI, Code of Military Law, 1869, and whether the hospitals are supplied with the Intendance and apothecaries' stores laid down in the tables appended to Chapters 440 and 445, Book XVI, Code of Military Law, 1869, and if there are deficiencies in these matters, the causes are to be enquired into.

5. Military works :

The officials of the Field Control are to be present, when it is considered necessary, at the inspections by special boards of buildings and other works, and are to sign the proceedings along with the other members of the Board, attesting by their signature that, primarily these works have actually been completed and inspected by those signing the proceedings. Everything noted at this inspection, in addition to what has been stated in the proceedings, is to be laid before the Chief Controller, together with a copy of the proceedings.

As regards materials prepared for buildings and other works, their inspection is to be carried out by the officials of the Field Control in the same way as for other Government property.

6. The preliminary verification of money issues from the Field Treasure Chests :

A preliminary verification of money issues from the field treasure chests is only to be carried out when such is considered necessary by the Commander of the troops in Trans-Caspia, after consultation with the Chief Controller, and in any case such preliminary verification is not to interfere with the usual revision of documents carried out in the corresponding departments of the Imperial Control.

In carrying out this preliminary control, the officials of the Field Control will be guided by the regulations laid down for the inspection of accounts.

Section 13. The reports drawn up by officials of the Field Control on their inspections of Government property, regarding irregularities, malpractices observed by them, should contain a detailed and precise statement of the results of the inspection, and should mention the persons in charge of the said property. The explanations of these latter may be appended to the report as special expressions of opinion, but they must be drawn up on the same day as the report, and the original of these explanations and the number on them should correspond to that of the report and must be verified by the persons conducting the inspection.

N.B.—Every report made by Members of the Field Control upon their own inspections, or those of special boards on which they have sat, must be entered in the letter book of the writer and marked with a number.

Section 14. Heads of departments, upon receiving a report from the Field Control regarding an inspection carried out by any of its officials (Field Control Regulations, section 16) are at once (without waiting to be requested by the Chief Controller) to give orders according to this report, and to send a copy of this report to the Chief Controller. If they do not consider it necessary to give orders upon any circumstances contained in the report, they are to inform the Chief Controller, stating their reasons. In the same way, heads of departments, on receiving notice from the persons mentioned in section 4 of these instructions of measures taken on the spot in the matter of facts discovered by the Field Control (sections 19 and 20, Field Control Regulations), will send to the Chief Controller a copy of this notice, and the orders given in consequence of it by them, if they have considered the measures taken on the spot insufficient or unlikely to gain their end.

Section 15. When, on the basis of reports from the Field Control, special boards are formed to enquire into matters discovered by the Control in their inspections, the heads of departments will at once report to the Chief Controller, so that a Control member may be nominated by him.

Section 16. In the note to section 7, Field Control Regulations, it is laid down that in important matters the Chief Controller may lay a written report before the Commander of the troops, or may make a personal report to him. Besides this, he must every month, or oftener if practicable, lay a report before the Commander of the troops on the operations of his officials, together with the orders given on their reports. A copy of these reports from the Chief Controller is also to be forwarded to the Imperial Controller.

The Chief Controller may communicate directly with all places and persons under the orders of the Commander of the troops (departments of the force and establishments under them, military and civil officials, &c.), and may demand explanations from them (Field Control Regulations, sections 1—7).

Section 17. To avoid untimely and incomplete reports on the revision of the issues of money and materials from treasure chests and magazines, all the accounts of these establishments, as laid down in Circular of the General Staff, No. 48, 8th (20th) February 1877, are to be sent for revision to the Office of the Minister of Finance, for which purpose they will be despatched by the departments, &c., of the Trans-Caspian Force, at the appointed time to the Field Treasury of the force, the packets being marked "Accounts offor the month of.....(year)."

Section 18. The superintendence of the despatch of these accounts for revision to the Field Treasury of the force is carried out by the Field Controllers under the orders of the Chief Controller.

Section 19. To enable the officials of the Field Control to exercise the superintendence mentioned in section 18, the Staff of the force is, immediately after any corps or establishment comes under its orders, to inform the Chief Controller from what Intendance Office, and for what period, ledgers, account sheets, and advances of money sent and expended by the time the corps, &c., joined the force, were issued. Heads of departments are to inform the Chief Controller on the 1st (13th) and 15th (27th) of each month of the ledgers and account sheets issued by them.

Section 20. Officials of the Field Treasury, Superintendents of magazines and depôts, and Commanders of convoys who issue money or supplies, are to note in their issue-books in what account sheet (stating number and office of issue) they have entered the money or supplies issued.

APPENDIX XCII.

INSTRUCTIONS FOR THE BOARDS ESTABLISHED IN THE TOWNS OF ASTRAKHÁN, PETROVSK, LANKORÁN AND BAKU, RELATIVE TO THE RECEIPT FROM THE CONTRACTORS AND GOVERNMENT VICTUALLERS OF PROVISIONS, FORAGE, AND OTHER ARTICLES OF SUPPLY FOR THE TROOPS IN TRANS-CASPIA AND THE SUPPLY-DEPÔTS IN THAT PROVINCE.

“APPROVED AT TIFLIS ON THE 26TH APRIL (8TH MAY 1880) BY THE COMMANDER OF THE ARMY OF THE CAUCASUS, PRINCE MELIKOFF, AIDE-DE-CAMP.”

(1) *Establishments.*

Each Board consists of a president and members appointed by the Commander of the Army of the Caucasus.

The presidents and the members from the Intendance are chosen by the Circle Intendant, but the president at Astrakhán is chosen by the Commander of the Army.

The other members from the Trans-Caspian Force, from the Field Control,* and from the Medical Department are nominated by the heads of their departments in communication with the District Intendant, and those from the Kazán District by the Commander of the troops in that district in communication with the Commander of the Army. A Secretary will be chosen from among the members. The presidents will report any change in the composition of the Boards to the District Intendant.

(2) *Duties.*

The duties of the Boards are as follow :—

- a.* They will finally receive all supplies, forage, materials, &c., furnished by contractors and other persons, and will issue receipts for them.

N.B.—The receipt of supplies, their despatch to their destinations, the issue of receipts, and the keeping of accounts will be performed in punctual observance of the regulations for supply-depôts in Book XII, Code of Military Law, 1869, and section 4, Book II, Code of Military Law, 1859, and also of the conditions in the contracts concluded with the furnishers.

* If these officials arrive before the Boards assemble.—*Author.*

- b. The Boards have the right of calling in experts. If supplies and materials are absolutely rejected, or if there is a decided division of opinion among the members of the Board, the president of the Board at Astrakhán has the rights of a District Intendant, but those of other Boards in the district will submit such matters, according to regulation, to the District Intendant.
- c. The Board draws up a special form of proceedings on each receipt of supplies, and in signing this, in the event of all not being agreed, the president and members may express their own opinions.
- d. As supplies are received and finally passed, the packages, sacks, bales, &c., will be marked with the stamp of the Board in the presence of the Board, and receipts signed by the president and secretary will be issued to the contractor.

(3) *Preservation of stores till shipped.*

The supplies, &c., received are to be handed over to an Intendance member of the Board appointed by the president, who will keep an account of the supplies handed over to him in a ledger, and will be answerable for their safe keeping like the Superintendent of a magazine.

N.B.—Ledgers will be provided by the Circle Intendance.

(4) *Despatch of stores.*

a. The date at which stores are to be ready to be sent off and the quantity to be despatched will be communicated by the president of the Board at Astrakhán to a person acting as Railway Station Commandant, and by those at other points to persons designated by the District Intendant.

N.B.—At Astrakhán, besides naming a date, the president of the Board will inform the Commandant of the quantity of supplies expected from the Upper Volga immediately on receipt of a telegram with this information from the contractor. The District Intendant will bind the contractor to send such information.

b. The loading of supplies for despatch will be carried out direct from the river boats to the deep-sea steamers at the time when they are received by the Board and after they are stamped; and if this is impossible, the supplies will be embarked by the official acting as Superintendent of supplies, observing the regulations for Superintendents of depôts in Book XII, Code of Military Law, 1869, and other conditions.

c. Stores when handed over should be entered in ledgers or in despatch books with remarks as to the number of packages, state of the packing materials, &c.

d. A telegram is to be sent by the President to the Commander of the troops in Trans-Caspia on such portion of the supplies being received or despatched, and another to the District Intendant; and a telegram is also to be sent to the District Intendant respecting the fulfilment or non-fulfilment by the contractors of the periods for partial or final delivery, and in the latter case stating the quantity of supplies not delivered.

e. In all misunderstandings which may arise in the despatch of stores, the president of the Board will settle the matter himself, and will take all measures in his power to hasten the despatch of stores.

(5) *Funds at the disposal of the Boards.*

For contingent expenses, such as hire of labourers, preparation of stamps, hire of buildings, &c., as store-houses, when such are not furnished by the civil authorities, office allowance, &c., funds will be placed at the disposal of the president, of which he will give an account.

N.B.—He will telegraph all such expenditure to the Circle Intendant for information.

(Sd.) BIKHORST, *Lieutenant-General,*

District Intendant.

APPENDIX XCIII.

COMPARATIVE STATEMENT OF THE LOSS OF STORES IN TRANSPORT ON PACK ANIMALS ACCORDING TO THE TABLE APPENDED TO SECTION 238, VOL. XII, OF THE CODE OF MILITARY LAW, AND ACCORDING TO THE DECISION OF THE BOARD ESTABLISHED TO WEIGH ARTICLES SUPPLIED TO THE ADVANCED FORCE.

Points between which the stores were carried and nature of the stores	DESPATCHED.		ACTUAL WASTE.		NORMAL WASTE.		EXCESS OF ACTUAL OVER NORMAL WASTE.	
	<i>Puds.</i>	Pounds	<i>Puds.</i>	Pounds.	<i>Puds.</i>	Pounds.	<i>Puds.</i>	Pounds.
<i>Duz-Olam to Khwāja-Kala, 80 versts (58½ miles).</i>								
Biscuit	2,609	24	118	29	23	30	94	39
Groats	423	...	39	4	5	12	33	32
Oats	13,427	26	554	20	167	34	386	26
<i>Duz-Olam to Bāmi, 130 versts (86½ miles).</i>								
Rye flour	554	37	100	...	9	1	90	39
Wheat flour	1,156	...	151	35	18	13	133	22
Biscuit	8,391	13	301	26	124	9	177	17
Buckwheat groats	3,005	...	410	30	61	...	349	30
Rice groats	1,916	32	67	...	39	2	27	38
<i>Khwāja-Kala to Bāmi, 50 versts (33½ miles).</i>								
Rye flour	617	10	27	33	3	27	24	6
Wheat flour	67	28	4	3	...	15	3	28
Biscuit	259	27	14	17	1	20	12	37
Buckwheat groats	88	...	4	30	...	27	4	3
Total	12,545	37	1,794	27	454	30	1,339	37
			5½ per cent.		1½ per cent.			

APPENDIX XCIV.

RETURN OF SUPPLIES, MATERIALS, &C., LOST DURING TRANSPORT IN THE
CONVOYS OF THE MERCHANT GROMOFF.

Points between which carried and description of stores.	Number.	WEIGHT.		PRICE OF EACH ITEM.		TOTAL.	
		Puds.	Pounds.	Roub.	Kop.	Roub.	Kop.
<i>Duz-Olum to Bâmi.</i>							
Horse biscuit	...	454	36	6	45	2,934	11
Oats	...	1,443	32	2	79	4,025	30
<i>Duz-Olum to Khwîja-Kala.</i>							
Rye flour	...	390	31	3	5	1,191	86
Biscuit	...	37	33	3	54½	133	99½
Buckwheat groats	...	191	11	3	34½	398	97½
Oats	...	25	8	2	79	70	31
Wheat flour	...	253	2	4	2½	1,139	25
<i>Mulla-Kâri to Bâmi.</i>							
Tea	...	3	26	50	1	152	54
Sugar	...	41	24	9	96	414	33
Salt	...	393	37½	1	65	649	98
Rye cakes	...	975	27	4	10	4,000	27
Oats	...	180	31	1	27	229	58½
Rye flour	...	10	2	2	10	21	10½
Buckwheat groats	...	1	15	2	45	8	41
Cabbage	...	46	5	2	60	119	22½
<i>Aidin to Bâmi.</i>							
Oats	...	489	20	3	7½	1,502	45
<i>Chikishliâr to Duz-Olum.</i>							
Rye flour	...	465	37	1	52	708	21
Biscuit	...	46	25	2	6	96	5
Buckwheat groats	...	42	5	1	89½	79	84
Onions	...	10	2	1	77½	17	81
Garlic	...	8	37	4	27½	35	15
Potatoes	...	32	12	1	37½	44	41
Pearl barley	...	5	3	4	92	24	96½
Horse biscuit	...	10	19	5	...	52	37½
Officers' Tents, French pattern	52	...	...	...	...	...	...
Soldiers' tents d'abri	108	...	...	...	...	...	...
Ropes	233	...	...	...	...	...	...
Oats	...	273	9	1	51	412	57
Cakes	...	78	36	3	9	243	80
Oats	...	18	35	1	51	25	50
Wheat flour	...	71	2	3	22	225	78
Potatoes	...	277	1	1	37	399	52½
Rice groat	...	79	3	3	7½	243	16
New ropes	...	53	12	...	...	...	...
<i>From Chikishliâr to Duz-Olum.</i>							
Cabbage	20 barrels	...	...	2	1½	167	90
Rye flour	...	2,203	23	1	52	3,347	88½
Buckwheat groats	...	295	14	1	89½	559	69
Wheat flour	...	74	10	3	22	239	8½
Rice groats	...	440	17	3	7½	1,353	62½
Fruit acids	...	84	15	7	87½	483	34
Ghi	16½	11	82½	4	72

Return of supplies, materials, &c., lost during transport in the convoys of the merchant Gromoff—contd.

Points between which carried and description of stores.	Number.	WEIGHT.		PRICE OF EACH ITEM.		TOTAL.	
		Puds.	Pounds.	Roub.	Kop.	Roub.	Kop.
<i>Soldiers' tentes d'abri (French pattern).</i>	120	...	...	...	...	...	...
Grey cloth ...	80 arshins	...	...	...	...	...	...
Biscuit ...	...	30	11	2	6	62	36
Sugar ...	...	...	11	9	37 $\frac{1}{2}$	103	13
Tea ...	...	1	27	49	42 $\frac{1}{2}$	82	78
Knitted waistcoats ...	27	...	...	...	...	...	...
Horse biscuit ...	...	113	17	5	...	567	12 $\frac{1}{2}$
Spirits ...	...	77	105	...	...	...	...
Cloth trousers ...	38	redros	chet.	...	...	...	...
<i>From Chikishliár to Duz-Olum.</i>							
Felts ...	37	...	...	...	...	...	...
Rice groats ...	...	430	15	3	7 $\frac{1}{2}$	1,324	63
Wheat flour ...	...	130	8	3	22	419	25
Potatoes ...	...	200	35	1	37 $\frac{1}{2}$	276	20
Mats, 1st quality ...	150	...	...	...	...	...	...
Uniforms ...	111	...	...	...	...	...	...
Great-coats ...	18	...	...	...	...	...	...
Dark-green cloth ...	{ 14 arshins	...	...	...	...	...	...
Neck bands ...	{ 10 vershok	...	...	...	...	...	...
Boots ...	3	...	...	...	...	...	...
...	67	...	...	...	...	...	...
<i>From Duz-Olum to Khwāja-Kala.</i>							
Ghi ...	...	8	37 $\frac{1}{2}$	11	82 $\frac{1}{2}$	155	70
Oats ...	...	10	10	1	51	15	48
Rye flour ...	...	24	37	2	97	74	...
Biscuit ...	...	78	22	3	50 $\frac{1}{2}$	275	40
Wheat flour ...	...	18	7	4	67	84	88
Potatoes ...	...	7	39	2	82 $\frac{1}{2}$	22	53
Sugar ...	...	...	3	9	87 $\frac{1}{2}$	...	70
Oats ...	...	103	27	2	96	306	88
<i>From Duz-Olum to Bámi.</i>							
Spirits ...	{ 1 ved.	...	...	13	37	17	11
Kakhetinski wine ...	{ 25 chet.	3	25	11	87	38	58
Spirits ...	{ 30 ved.	...	...	13	37	409	79
Ghi ...	{ 65 chet.	7	9	13	27 $\frac{1}{2}$	45	91
Oats ...	...	15	27	2	96	55	25
<i>From Krásnovodsk to Bámi.</i>							
Sugar ...	...	94	36	9	37 $\frac{1}{2}$	889	49
Tea ...	...	12	7	49	42 $\frac{1}{2}$	601	75
Rye flour ...	...	755	1	1	52	1,147	64
Biscuit ...	...	252	10	2	6	519	63 $\frac{1}{2}$
Wheat flour ...	...	468	16	3	22 $\frac{1}{2}$	1,510	58
Horse biscuit ...	...	134	10	5	...	671	25
Cakes ...	...	242	7	3	9	748	32

Return of supplies, materials, &c., lost during transport in the convoys of the merchant Gromoff—concl'd.

Points between which carried and description of stores.	Number.	WEIGHT.		PRICE OF EACH ITEM.		TOTAL.	
		<i>Puds.</i>	Pounds.	<i>Roub.</i>	<i>Kop.</i>	<i>Roub.</i>	<i>Kop.</i>
<i>From Mulla-Kári to Bámi.</i>							
Rye flour	130	6	2	53	329	28
Buckwheat groats	66	35	2	90 $\frac{1}{2}$	194	48
Biscuit	9	34	3	7	30	24
Wheat flour	244	13	4	23 $\frac{1}{2}$	1,034	72
Rice groats	213	32	4	8 $\frac{1}{2}$	873	37
Fruit acids	24	4	8	88 $\frac{1}{2}$	223	...
Spirits	{ 37 ved. 15 chet. }	...	...	12	93	450	34
<i>Ghi</i>	79	2	12	83 $\frac{1}{2}$	1,014	61
Cabbage	263	4	3	2 $\frac{1}{2}$	795	88
Total loss	13,591	22	...	...	41,175	41
Replaced	4,022	2	...	...	9,310	42
Loss remaining	9,569	20	...	...	31,864	79

APPENDIX XCV.

CONTRACT CONCLUDED WITH KHIVAN MERCHANTS FOR THE SUPPLY OF MEAT.

Superscribed:—

"I CONFIRM."—(Sd.) SKOBELEFF, *General and Aide-de-Camp*,—dated *Chikishliár*, the 22nd May (3rd June) 1880.

On the 17th (29th) May 1880, we, the undersigned, the inhabitants of Khiva, *caravan-báshis* Hákim-Bai-Babaeff, Niáz-Muhammad, and Mullah Nur-Geldi-Khudai-Berdieff, and Major Yepifánoff, Intendant of the troops in Trans-Caspia, have concluded this contract for the supply of meat to the troops of the advanced force along its line of march from Duz-Olum to the territory of the Akhál-Tekke *oasis*, on the following conditions:—

1. From the day the troops of the advanced force march from Duz-Olum, we, Babaeff, Muhammad, and Berdieff, engage to furnish meat to all troops of the force in the proportion of one-fourth beef and three-fourths mutton. The quantity of meat required is not laid down exactly; the approximate requirements will be 7,000 *puds*, but this figure may be increased or diminished according to circumstances. In neither case have we a right to complain, as the amount of meat required will depend upon the number of troops.

2. By the nature of the contract, the points at which the meat is to be supplied cannot be laid down, but they will be limited by the movements of the force; wherever the force or any portion of it goes, thither we are bound to follow it and satisfy its requirements.

3. The period for which our contract is made is for two months from the day the force leaves Duz-Olum, and after that we are bound to continue the supply till the 1st (13th) January 1881, but only at the points occupied by the troops at the end of the period of two months and no further, and not unless the Intendance gives us two weeks' notice of the prolongation or stoppage of our contract.

4. The meat is to be of the quality required by Chapter 138, Book XII, Code of Military Law, section 8, *viz.*, it is to be fresh, good, with the fat still on it, without legs, heads, hearts, entrails, necks or tails; the meat is to be generally of a thoroughly good quality, and we are bound to have always a sufficient number of cattle, so that the troops may never suffer want of meat.

5. The meat furnished by us is to be issued direct to the troops, who are bound to receive it and give us receipts, showing the quality of meat issued to them in *puds* and pounds, and also the number of the account sheet in which the meat received is entered. If these conditions are not complied with, payment will not be made on the receipts.

6. The price for each *pud* of meat supplied to the troops will be five *roubles* forty *kopecks*. The payment of this money will be made by the Intendence upon the receipts presented by us.

7. We offer no security for the proper fulfilment of our contract. Instead of such, the Intendence of the force will withhold the money due to us for the first month's supply. This security will not be freed till the completion of the contract and the final settlement of accounts. As an infraction of the obligations to Government undertaken by us is to be considered the non-furnishing of meat to the troops, or the furnishing of such as is rejected by them, if the troops are thus left without meat. In such cases, as are verified by a Military Board, a fine may be imposed upon us to the extent of 20 per cent. of the sum by which the contract has not been fulfilled.

8. The tax on this contract due to Government will be deducted when accounts are finally settled up.

9. In all cases not herein mentioned, we are to be guided by the rules for contracts in general.

APPENDIX XCVI.

CONTRACT CONCLUDED WITH GROMOFF, MERCHANT OF THE 1ST GUILD OF TÁSHKAND, FOR THE SUPPLY OF MEAT.

Superscribed:—

"I CONFIRM."—(Sd.) SKOBELEFF, *General and Aide-de-Camp, Temporary Commander of the troops in Trans-Caspia.*

No. 1050, dated Fort Tamanskoye (Bámi), 8th (20th) February 1881.

On the 25th of January (6th February) 1881, we, the undersigned, Colonel Kozelkoff, Intendant of the Forces in Trans-Caspia, and Alexander Yegoroff Gromoff, merchant of the 1st Guild of Tashkand, have concluded the following contract for the supply of meat to the troops on the lines of communication between Chikishliár and Bámi and from Micháelovsk to Bámi, and beyond as far as the troops move in the Akhál-Tekke *oasis*, for the period from the 1st (13th) January to the 1st (13th) July 1881, on the following conditions:—

1. I, Gromoff, bind myself to supply meat for the troops and Government administrations and establishments in the country at the following prices from Chikishliár to Bámi, 5 *roubles* a *pud*, from Micháelovsk to Bámi and as far as the troops move within the limits of the Akhál-Tekke *oasis*, 6 *roubles* a *pud*, Bámi being counted as belonging to the Micháelovsk line, *i.e.*, meat supplied there will be charged at 6 *roubles*.

2. Of the meat furnished by the contractor, mutton is to be issued at least three times a week, and goat's flesh is only to be issued with the consent of the troops.

3. At the points where more than 200 troops are stationed, the contractor is bound to issue meat by weight and have his own clerks and butchers; at points where the garrison is less than 200 strong, cattle and sheep are to be given direct to the troops, the weight being determined by mutual consent. When a force of the strength of one mobilized battalion or two divisions of cavalry is moved, the contractor is bound to have cattle and sheep driven with the force by his own men, but with a force of smaller strength than the above, cattle and sheep are to be handed over to it, their weight being fixed by mutual consent.

4. The meat issued by the contractor is to be fresh and succulent and in a word of the quality required by law, and is to be issued without the fat being removed and without legs, hearts, entrails, or tails, the head being taken at half weight.

5. The meat is to be issued to the troops against receipts, in which is to be mentioned in what account sheet each issue is entered. If this is not done by the troops, payment will be made all the same to Gromoff on the presentation of his receipts, and the latter will be corrected by the troops by order of the Intendence.

6. For the horned cattle and sheep captured up to date from the Tekkes and handed over to the merchant Gromoff, the latter will pay to Government 25 *roubles* per horned animal and 3 *roubles* 75 *kopecks* per sheep or goat, and, after this, sheep and cattle, which may be captured by the troops from the enemy, will only be handed over to Gromoff by special decision of the Temporary Commander of the troops, and if he does not so decide and hands the cattle over directly to the troops, Gromoff has no right to complain. The money due from Gromoff for the cattle and sheep sold to him is not to be deducted from him in a lump sum, but by monthly instalments in equal parts till the termination of the period of his contract.

7. In the event of the number of troops being increased or diminished within the period of the contract, the contractor is bound to continue the supply of meat to the troops, but the contractor is to be informed a month beforehand of any important change in their numbers. In the event of the whole of the troops leaving the country before the 1st (13th) July, the terms of the contract will come to an end, and the contractor is to have no right to complain.

8. Payment for the meat furnished will be made within three days of the presentation of the receipts by the Intendence of the force or his branches from the field treasure chests wherever desired by the contractor, and the issue of a cheque to the contractor is to be considered as a money payment to him for the time.

9. The security required by law to provide against non-fulfilment of the contract is not furnished on account of the confidence placed in the contractor by the Temporary Commander of the troops; but in the event of the contract being broken or unfulfilled, the amount of the fine will be fixed by the Temporary Commander of the troops, and if the sums due to the contractor and still in the hands of Government do not make up the amount of this fine, the balance will be deducted from the merchant Gromoff from sums due to him for other operations in the country.

10. For the meat issued to the troops by the merchant Gromoff before the period of this contract, *i.e.*, in November and December 1880, payment will be made at the rates mentioned in this contract.

11. The tax on this contract will be deducted at the final settling of accounts.

APPENDIX XCVII.

RULES FOR THE PRELIMINARY VERIFICATION OF EXPENDITURE INCURRED BY
DEPARTMENTS AND OFFICIALS AND OF SUMS DISBURSED FROM THE FIELD
TREASURE CHEST IN TRANS-CASPIA.

Superscribed :—

"I CONFIRM."—(Sd.) SKOBELEFF, *General and Aide-de-Camp*,—dated *Krásnovodsk*,
the 1st (13th) September 1880.

(1) GENERAL REGULATIONS.

Section 1. According to paragraph 6, section 12, of the instructions for the control of the Trans-Caspian Field Force, a preliminary control of all issues of money by departments and officials of the Field Treasury in Trans-Caspia is introduced.

Section 2. The object of this preliminary verification is to prevent irregular issues of money and to permit of a timely verification of assignments by the necessary documents. The necessary documents are :—(1) In expenditure for general Government requirements, those laid down by general and particular regulations for issues of money. (2) In expenditure upon credits opened specially for the objects of the expedition, the orders of the Commander of the troops in Trans-Caspia, or the demands of departments and persons authorised to this effect by the Commander of the troops, and also the documents required by general and particular rules for money issues, as far as such documents apply to the particular description of expenditure.

N.B.—Authorisations are given by the Commander of the troops for a certain class of expenditure, or, without naming the objects of expenditure, for a certain sum.

Section 3. The system of a preliminary control is in no case to stop the usual regular issue of money.

Section 4. The preliminary control, not forming of itself a final Government verification, is not to interfere with the usual documental revision by the Control authorities to whom such revision is entrusted.

(2) ORGANIZATION OF THE CONTROL.

Section 5. The preliminary verification of money issues is to be made by the Controllers of the Field Control at the stations of the Field Treasuries, and Assistant Controllers may be detailed to help them.

Section 6. The absence of the Controller from the station of the Field Treasury is not to stop payment of assignments, and the Field Treasuries are in this case to make payments without preliminary verification by the control.

Section 7. On the return of the Controller to the station of the treasury, or on the arrival of a Controller, the issues made without preliminary control are to be verified according to the regulations in section 15 of these rules.

(3) METHOD OF PROCEDURE OF THE PRELIMINARY CONTROL.

Section 8. Assignments made by departments and officials, as they are received in the treasury, are to be at once laid before the Controllers when such are in the same station as the treasury; in the opposite case, they are to be paid without preliminary verification.

Section 9. The verification of assignments by the Field Controllers is carried on for ordinary issues in such a manner that all assignments may be

verified on the day of their being received for verification, and in the case of extraordinary issues (marked "pressing") not more than one hour is to elapse between their presentation to the Controller and their return to the treasury.

N.B.—To enable the business of verification to be performed within the times stated, the submission of assignments to the Controller is to be carried out without the least delay.

Section 10. On the verification of assignments, the Field Controllers are to return them to the treasuries with their signature on the back and marked (1) payable, (2) non-payable (stating reason), (3) conditionally payable (stating documents required).

N.B.—"Conditionally payable" are those assignments part of which appears perfectly regular, and part of which requires additional documents or is altogether irregular. According to this those assignments are to be marked.

(4) RULES OF OPERATION.

Section 11. The Field Controllers have the right of verifying assignments and their justificatory documents; but if time is wanting, they may leave complicated accounts in assignments unrevised, making a remark to this effect when signing the assignment.

N.B.—The rights, attributed in these regulations to Controllers, belong also to the Chief Controller, if in the course of affairs he finds it possible to personally take part in the operations of the preliminary control.

Section 12. As payable assignments are to be noted :—

- (1) Those for general Government purposes, when they are supported by the proper documents laid down in the general and particular rules for money issues.
- (2) Expenditure on credits opened specially for the objects of the expedition when the assignments are supported in the case of expenditure for operations, by the orders of the Commander of the troops or by demands made by persons authorised by him; in other cases, when the assignments are supported by States or regulations issued specially for the period of the war or by general regulations.
- (3) Assignments made generally by order of the Commander of the troops or on demands made by those authorised by him. Such assignments are to be noted payable, although all the necessary documents are not added to them; but such documents may nevertheless be demanded by the Controllers after payment of the assignments from the departments or persons presenting the assignments, except in the case of extraordinary expenditure by the Commander of the troops.

Section 13. Those assignments are to be noted as conditionally payable when the principal documents are not presented with them; such as—Orders by the Commander of the troops, contracts with contractors, accounts with them, reports of articles having been actually furnished to, or services rendered to Government, &c.

Section 14. Assignments are to be noted as non-payable—

- (a) when they have been issued by persons who have no right to do so; (b) when there is no credit for them.

be paid; (c) when the assignment is clearly contrary to the orders of the Commander of the troops; (d) in cases wherein direct assignments are demanded when only advances can be made; (e) when advances are demanded without accounts justifying the operation being presented; (f) in cases wherein demands are made for coin, gold, or bank silver, when credit notes or small money is allowed to be paid.

N.B.—Second advances may be made without the accounts of the first being handed over only to persons and departments authorised to this effect by the Commander of the troops, which authorisation is to be communicated to the Chief Controller and to the treasury for the information of the Field Controllers and Field Treasury officials.

Section 15. Accounts of advances are to be verified by the Field Controllers, and in the event of irregular expenditures or the issue of sums requiring to be supported by additional documents being detected, the Controllers are to report in writing to the departments or persons who have signed the assignments for advances.

Section 16. Field Controllers carrying out the preliminary verification of money issues are to compare, among other things, the particular accounts with the results of their inspections of the stores of material, &c., and if they observe assignments for stores which have not yet been delivered or for services not yet performed, they are to note such assignments as non-payable.

(5) RESULTS OF THE PRELIMINARY VERIFICATION.

Section 17. On receiving from the Field Controllers' assignments marked "non-payable" or "conditionally payable," the treasury officials are to forward them at once to the persons who issued them without special forwarding letters.

Section 18. Assignments marked "conditionally payable" are to be completed by the documents indicated by the Field Controllers and returned to the treasury by the persons concerned. They will then be again verified by the Field Controllers as if they had newly arrived.

N.B.—If the treasury at which payment has to be made is distant from the place of residence of the person who issued the assignment not supported by the necessary documents, the Field Controllers, in permitting payment of such assignments, are to bring it to the notice of the Field Controller, who will thus ask the Commander of the troops for orders for the setting aside of the regulations in such a case. At the same time the Controllers will demand the necessary documents from such a person.

Section 19. Assignments marked "non-payable" are either left incomplete by the persons issuing them, or are returned to the treasurers with a request for payment to be made on the responsibility of the person signing the assignment. In the latter case, the treasury official who has to make payment will report to the Controller, but will in no case make payment of assignments issued by people not authorised to do so.

Section 20. The Field Controllers are to bring every assignment noted as non-payable, whether paid on the responsibility of the issuer or not paid at all, to the notice of the Chief Controller, who will report such, with his remarks, to the Commander of the Troops.

Section 21. Additions and changes in these regulations may be made by the Commander of the troops after communication with the Chief Controller, and such will be published in General Orders.

APPENDIX XCVIII.

RETURN OF THE ASSIGNMENTS NOTED AS NON-PAYABLE OR AS CONDITIONALLY PAYABLE DURING NOVEMBER 1880.

Date of assignment.	No. of assignment.	To whom and by whom issued, and for what purpose.	Sum.	Reasons for noting it as non-payable or conditionally payable.
1880. July 26th (August 7th)	2414	By the Intendant of the Force, to Engineer Vasilieff, advance for construction of house for Commanding Officer at Chikishliar.	1,200 r.	By chapter 138, section 4, of the rules for the receipt and issue of Government money; this can only be allowed to the extent of $\frac{1}{3}$ rd of the total sum allowed for the house.
June 10th (22nd)	1411	By the Intendant of the Force, to Major-General Petrusévitch for the construction of a wharf at Krásnovodsk.	46,400 r.	1st, In instructions of G. O. C. No. 2634, it was not decided to use the whole sum assigned for the construction of a wharf at once. 2nd, By Chapter 138, Section 4, of the rules for the receipt and issue of Government money, an advance of $\frac{1}{3}$ rd of the total sum only can be allowed.
Nov. 10th (22nd)	3467	By Krásnovodsk Intendance section to Colonel Shabánoff, the officer superintending the movement of the troops, on the Astrakhan Treasury for payment of advances.	25,000 r.	Because no accounts have been furnished of former advances according to Section 14 of the Regulations for the Preliminary Control.
Nov. 15th (27th)	474 18858	By the Intendance of the Advanced Force, to the officials of the Artillery Administration in Trans-Caspia and those attached to this Department, for ration and forage money.	{ 4,675 r. 97 kop.	Forage money is issued at the prices fixed at Bámi to Acting Assistant Adjutant College Secretary Mandenoff from 24th July (5th August) to 1st (13th) September, to Staff-Captain Baluyeff from 1st (13th) September to 1st (13th) November, and to Lieutenant Berg from 1st (13th) September to 1st (13th) November, while orders show that Mandenoff arrived on 22nd August (3rd) September, Baluyeff on 4th (16th) November, and nothing is known of Berg's arrival. Captain Sairgaiyeff is allowed forage money for 5 horses instead of 2, riding horses as in the documents, and forage for 3 other carriage horses cannot be allowed. 3,968 roub. 44 kop. are payable, 707 roub. 43 kop. are conditionally payable.
Nov. 14th (26th)	471	By Intendance of Advanced Force, to 1st Battalion 83rd Regiment, to buy horses to replace those lost.	50 r.	According to Army Circular No. 200, 1875, no sums are issued for remounts in war, and such expenses are to be met by the extraordinary sums at the

Return of the assignments noted as non-payable or as conditionally payable during November 1880—contd.

Date of assignment.	No. of assignment.	To whom and by whom issued, and for what purpose.	um.	Reasons for noting it as non-payable or conditionally payable.
July 14th (26th) and Nov. 23rd (Dec. 5th)	5717 18888 18892 18893 18895 18896 18899	By Intendence of Advanced Force, to different persons, for travelling expenses from Chikishliár to Duz-Olum.	{ 420 r. 7 kop.	disposal of the General Officer Commanding troops. No order from later for payment of 50 r. was appended. By G. O. 31, 14th (26th) March 1880, travelling money is only issued to persons travelling on special duty by orders of Commandants, if posts occupied by the troops. These persons do not come under this category and only moved up to Bámi to take over their duties. Therefore assignments are noted conditionally payable till orders are received from the General Officers Commanding.
Nov. 26th (Dec. 8th)	541	By Intendence of Advanced Force to Lieutenant Gurieff, for marching allowance as Commander of a camel convoy.	700 r.	From the copy of an order from General Officer Commanding Lines of Communication, appended to the assignment, it is evident that Lieutenant Gurieff was only appointed to superintend the convoys on the road from Bála-Ishem to Bámi, but was not appointed Commander of a camel convoy. The assignment is therefore conditionally payable.
Nov. 26th (Dec. 8th)	542	By Intendence of advanced force to Lieutenant Gurieff for ration, forage, and table-money as Commander of a camel convoy.	{ 652 r. 39 kop.	As above.

APPENDICES TO CHAPTER XIX.

APPENDIX XCIX.

GENERAL RETURN OF INCREASE AND DECREASE AMONGST THE SICK IN THE MEDICAL ESTABLISHMENTS OF TRANS-CASPIA AND IN THE REGIMENTAL HOSPITALS OF THE TROOPS ENGAGED IN THE AKHÁL-TEKKE EXPEDITION.

Cause of admission.		Number at beginning of year.	Admitted.	Discharged cured.	Died.	Invalided to the Caucasus.	Remaining at end of year.
<i>Wounds from firearms or cold steel—</i>							
1879		...	264	173	8	78	5
1880		5	378	62	21	10	290
1881		290	621	641	147	101	12
Total	...	...	1,263	876	176	199	12
<i>Intermittent fever—</i>							
1879		...	7,673	7,501	52	86	34
1880		34	5,528	5,369	35	47	111
1881		111	2,883	2,757	30	95	112
Total	...	...	16,084	15,627	117	228	112
<i>Dysentery—</i>							
1879		...	984	747	136	87	14
1880		14	580	453	75	49	17
1881		17	16	109	64	20	10
Total	...	...	1,750	1,309	275	156	10
<i>Abdominal Typhus (Typhoid)—</i>							
1879		...	1	...	1	...	...
1880		...	23	13	10	...	...
1881		...	84	50	34	...	...
Total	...	...	108	63	45	...	...
<i>Spotted Typhus—</i>							
1879		...	...	...	...	...	...
1880		...	1	...	1	...	...
1881		...	185	137	46	2	...
Total	...	...	186	137	47	2	...

General return of increase and decrease amongst the Sick in the Medical Establishments of Trans-Caspia &c.—contd.

Cause of admission.		Number at beginning of year.	Admitted.	Discharged cured.	Died.	Invalided to the Caucasus.	Remaining at end of year.
<i>Relapsing Typhus—</i>							
1879		...	...	...	...	...	...
1880		...	40	13	2	2	...
1881		23	758	557	54	162	23
	Total	...	798	570	56	164	8
<i>Typhus in undetermined forms—</i>							
1879		...	...	...	...	...	...
1880		...	36	23	8	...	...
1881		5	318	258	41	18	5
	Total	...	354	281	49	18	6
<i>Enteric Catarrh—</i>							
1879		...	3,618	3,408	68	115	27
1880		27	3,340	3,123	69	112	63
1881		63	1,562	1,341	33	146	105
	Total	...	8,520	7,872	170	373	105
<i>Scurvy—</i>							
1879		...	616	219	8	311	78
1880		78	598	472	13	147	44
1881		44	723	356	25	344	42
	Total	...	1,937	1,047	46	802	42
<i>Eye diseases—</i>							
1879		...	542	531	...	3	5
1880		5	652	628	...	14	15
1881		15	287	257	...	40	5
	Total	...	1,481	1,419	...	57	5
<i>Other diseases—</i>							
1879		...	3,381	3,072	36	130	143
1880		143	6,436	6,227	38	116	198
1881		198	3,481	2,971	68	577	66
	Total	...	13,301	12,270	142	823	66
	Grand total	...	45,782	41,471	1,123	2,822	366
<i>Divided as follows—</i>							
1879		...	17,079	15,654	309	810	306
1880		306	17,612	16,383	272	497	766
1881		766	11,091	9,434	542	1,515	366

APPENDIX C.

RETURN OF THE MONTHLY FLUCTUATIONS AMONGST THE SICK AND WOUNDED IN THE
MEDICAL ESTABLISHMENTS AND REGIMENTAL HOSPITALS OF THE TRANS-
CASPIAN FIELD FORCE.

*Return of the Wounded in the Medical Establishments and Regimental
Hospitals.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	3	3	...	...	...	...
	June	...	...	...	2	1	...	...	...	1
	July	...	...	1	1	1	...	...	...	1
	August	...	...	1	213	3	...	...	...	211
	September	...	...	211	42	57	7	28	...	161
	October	...	...	161	84	84	1	59	76	25
	November	...	...	25	1	14	...	1	2	9
	December	...	...	9	6	10	...	...	...	5
Total				...	352	173	8	88	78	5
1880	January	...	...	5	...	2	...	2	...	1
	February	...	...	1	1	1	...	...	...	1
	March	...	...	1	...	...	...	...	...	1
	April	...	...	1	1	1	...	...	...	1
	May	...	...	1	2	2	...	...	...	1
	June	...	...	1	3	2	...	1	...	1
	July	...	...	1	1	...	...	...	...	2
	August	...	...	2	5	1	...	4	...	2
	September	...	...	2	48	16	1	7	...	26
	October	...	...	26	15	15	...	13	3	10
	November	...	...	10	27	11	...	3	7	16
	December	...	...	16	593	11	20	288	...	290
Total				5	696	62	21	318	10	290
1881	January	...	...	290	1,948	203	88	1,589	24	300
	February	...	...	300	391	191	36	231	10	223
	March	...	...	223	162	115	21	65	52	132
	April	...	...	132	41	57	...	53	3	60
	May	...	...	60	9	28	1	6	7	27
	June	...	...	27	2	13	1	...	3	12
Total				290	2,553	641	147	1,944	99	12
Grand total				...	3,601	876	176	2,350	187	12

Return of the Wounded in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	1	...	...	...	1
	August	...	...	1	...	...	...	...	...	1
	September	...	...	...	33	1	...	5	...	...
	October	...	...	27	77	12	1	9	76	27
	November	...	...	6	...	...	...	...	2	6
	December	...	...	4	...	...	...	...	...	4
Total				...	112	15	1	14	78	4
1880	January	...	...	4	...	1	...	2	...	1
	February	...	...	1	...	...	...	...	...	1
	March	...	...	1	...	...	...	...	...	1
	April	...	...	1	...	1	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	1	...	...	...	...	1
	July	...	...	1	...	...	...	...	...	1
	August	...	...	1	1	...	...	...	...	2
	September	...	...	2	28	7	...	1	...	22
	October	...	...	22	10	13	...	9	3	7
	November	...	...	7	10	6	...	1	7	3
	December	...	...	3	141	4	2	21	...	117
Total				4	191	32	2	34	10	117
1881	January	...	...	117	1,153	131	41	861	24	221
	February	...	...	221	293	113	32	180	10	179
	March	...	...	179	136	74	20	53	52	116
	April	...	...	116	28	48	...	41	3	52
	May	...	...	52	9	21	...	6	7	27
	June	...	...	27	2	13	1	...	3	12
Total				117	1,628	400	94	1,141	99	12
Grand total				...	1,932	447	97	1,199	187	12

Return of the Wounded in the Medical Establishments and Regimental Hospitals—contd.

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
							To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...
Total			...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...
	May	...	...	1	...	...	...	...	...
	June	...	1	...	...	...	...	...	1
	July	...	1	...	...	...	...	...	1
	August	...	...	...	...	...	1	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	10	3	1	3	...	...
	November	...	3	1	...	...	2	...	3
	December	...	2	3	2	...	1	...	2
Total			...	305	1	16	124	...	166
Total			...	320	6	17	131	..	166
1881	January	...	166	528	39	47	558	...	50
	February	...	50	29	22	4	40	...	13
	March	...	13	10	11	1	6	...	5
	April	...	5	10	4	...	10	...	1
	May	...	1	...	...	1	...	...	...
	June	...	...	...	...	...	...	...	...
Total			...	166	577	76	53	614	...
Grand total			...	...	897	82	70	745	...

Return of the Wounded in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	3	3	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	1	1	...	...	...	...
	August	...	...	...	213	2	...	...	...	211
	September	...	...	211	9	56	7	23	...	134
	October	...	...	134	7	72	...	50	...	19
	November	...	...	19	1	14	...	1	...	5
	December	...	...	5	6	10	...	...	...	1
Total				...	240	158	7	74	...	1
1880	January	...	...	1	...	1	...	...	...	...
	February	...	...	...	1	1	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	2	2	...	...	...	...
	June	...	...	...	2	2	...	...	...	...
	July	...	...	...	1	...	...	...	...	1
	August	...	...	1	4	1	...	4	...	...
	September	...	...	...	10	6	...	3	...	1
	October	...	...	1	4	2	...	2	...	1
	November	...	...	1	14	3	...	1	...	11
	December	...	...	11	147	6	2	143	...	7
Total				1	185	24	2	153	...	7
1881	January	...	...	7	259	67	...	170	...	29
	February	...	...	29	69	56	...	11	...	31
	March	...	...	31	16	30	...	6	...	11
	April	...	...	11	3	5	...	2	...	7
	May	...	...	7	...	7	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
Total				7	347	165	...	189	...	...
Grand total				...	772	347	9	416	...	...

Return of the cases of Intermittent Fever in the Medical Establishments and Regimental Hospitals.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	1,155	1,021	...	19	...	115
	June	...	...	115	1,362	1,245	1	55	...	176
	July	...	...	176	1,637	1,397	7	153	14	242
	August	...	...	242	1,179	939	25	132	38	287
	September	...	...	287	1,224	1,153	10	131	8	209
	October	...	...	209	954	875	6	113	22	147
	November	...	...	147	537	572	1	37	4	70
	December	...	...	70	276	299	2	11	...	34
Total				...	8,324	7,501	52	651	86	34
1880	January	...	...	34	169	159	4	8	...	32
	February	...	...	32	355	298	...	15	...	74
	March	...	...	74	209	186	...	33	...	64
	April	...	...	64	244	219	...	13	...	76
	May	...	...	76	294	269	1	49	...	51
	June	...	...	51	389	337	...	58	...	45
	July	...	...	45	521	466	1	45	...	54
	August	...	...	54	866	739	4	58	...	119
	September	...	...	119	1,081	837	8	131	8	216
	October	...	...	216	965	826	8	139	23	185
	November	...	...	185	557	511	2	98	7	123
	December	...	...	123	634	522	6	109	9	111
Total				34	6,284	5,369	35	756	47	111
1881	January	...	...	111	795	402	7	327	11	159
	February	...	...	159	1,103	593	11	393	10	255
	March	...	...	255	722	529	7	285	20	136
	April	...	...	136	424	317	2	126	8	107
	May	...	...	107	542	410	1	118	7	113
	June	...	...	113	644	506	2	98	39	112
Total				111	4,230	2,757	30	1,347	95	112
Grand total				...	18,838	15,627	117	2,754	228	112

Return of the cases of Intermittent Fever in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	39	14	...	...	...	...
	July	...	...	...	25	105	5	...	...	25
	August	...	...	...	65	112	24	37	14	65
	September	...	...	...	35	69	10	26	8	35
	October	...	...	...	20	68	6	19	22	20
	November	...	...	...	21	28	1	20	4	21
	December	...	...	...	13	10	2	...	...	13
Total				...	431	190	48	102	86	5
1880	January	...	...	5	18	9	3	1	...	10
	February	...	...	10	24	18	...	1	...	15
	March	...	...	15	27	19	...	3	...	20
	April	...	...	20	33	27	...	3	...	23
	May	...	...	23	17	14	...	12	...	14
	June	...	...	14	41	31	...	16	...	8
	July	...	...	8	52	16	1	31	...	12
	August	...	...	12	90	52	4	61	...	30
	September	...	...	30	125	76	6	...	8	65
	October	...	...	65	108	83	7	14	23	46
	November	...	...	46	108	89	3	8	7	47
	December	...	...	47	126	76	5	34	9	49
Total				5	769	510	29	139	97	49
1881	January	...	...	49	129	63	2	38	11	64
	February	...	...	64	365	79	11	219	10	110
	March	...	...	110	211	135	6	87	20	73
	April	...	...	73	155	104	2	49	8	65
	May	...	...	65	132	130	1	36	7	23
	June	...	...	23	171	103	1	21	39	30
Total				49	1,163	614	23	450	95	30
Grand total				...	2,363	1,314	100	691	228	30

*Return of the cases of Intermittent Fever in the Medical Establishments and
Regimental Hospitals—contd.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Cau- casus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	5	...	...	...	...	5
	December	...	...	5	4	4	...	1	...	4
Total				...	9	4	...	1	...	4
1880	January	...	...	4	2	4	1	...	...	1
	February	...	...	1	8	5	...	...	...	4
	March	...	...	4	4	6	...	...	...	2
	April	...	...	2	6	2	...	1	...	5
	May	...	...	5	3	4	1	...	...	3
	June	...	...	3	3	3	...	3	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	4	4	...	...	...	...
	September	...	...	...	83	38	2	16	...	27
	October	...	...	27	48	26	...	14	...	35
	November	...	...	35	36	35	...	14	...	22
	December	...	...	22	54	46	1	8	...	21
Total				4	251	173	5	56	...	21
1881	January	...	...	21	252	45	5	182	...	41
	February	...	...	41	95	69	...	5	...	62
	March	...	...	62	74	82	1	34	...	19
	April	...	...	19	48	47	...	8	...	12
	May	...	...	12	68	44	...	10	...	26
	June	...	...	26	42	37	1	8	...	22
Total				21	579	324	7	247	...	22
Grand total				...	839	501	12	304	...	22

*Return of the cases of Intermittent Fever in the Medical Establishments and
Regimental Hospitals—conclud.*

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
							To other medical es- tablishments in district.	To the Cau- casus.	
1879	May	...	...	1,155	1,021	...	19	...	115
	June	...	115	1,323	1,231	1	53	...	151
	July	...	151	1,543	1,351	2	155	...	177
	August	...	177	1,067	896	1	95	...	252
	September	...	252	1,155	1,113	...	105	...	189
	October	...	189	886	855	...	94	...	126
	November	...	126	504	561	...	17	...	52
	December	...	52	262	279	...	10	...	25
Total			...	7,886	7,207	4	550	...	25
1880	January	...	25	149	146	...	7	...	21
	February	...	21	323	275	...	14	...	55
	March	...	55	178	161	...	30	...	42
	April	...	42	205	190	...	9	...	48
	May	...	48	274	251	...	37	...	34
	June	...	34	345	303	...	39	...	37
	July	...	37	469	450	...	14	...	42
	August	...	42	772	683	...	42	...	89
	September	...	89	873	723	...	115	...	124
	October	...	124	809	717	1	111	...	104
	November	...	104	43	387	...	76	...	54
	December	...	54	454	400	...	67	...	41
Total			25	5,264	4,686	1	561	...	41
1881	January	...	41	414	294	...	107	...	54
	February	...	54	643	445	...	169	...	83
	March	...	83	437	312	...	164	...	44
	April	...	44	221	166	...	69	...	30
	May	...	30	342	236	...	72	...	64
	June	...	64	431	366	...	69	...	60
Total			41	2,488	1,819	...	650	...	60
Grand total			...	15,638	13,812	5	1,761	...	60

Return of the cases of Dysentery in the Medical Establishments and Regimental Hospitals.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.	
								To other medical establishments in district.	To the Casualties.		
1879	May	...	...	...	113	83	4	1	...	25
	June	...	...	25	119	103	3	14	...	19
	July	...	...	19	340	159	30	58	4	103
	August	...	...	108	329	146	52	103	33	93
	September	...	...	98	199	120	32	74	7	64
	October	...	...	64	124	75	8	41	38	23
	November	...	...	26	54	27	5	23	...	25
	December	...	...	25	27	29	2	7	...	14
Total				...	1,305	747	136	331	87	14	
1880	January	...	...	14	12	10	2	4	...	10
	February	...	...	10	10	9	1	5	...	5
	March	...	...	5	23	11	...	7	...	10
	April	...	...	10	25	19	...	5	...	11
	May	...	...	11	32	14	...	11	...	13
	June	...	...	18	68	28	2	29	...	27
	July	...	...	27	138	32	3	39	...	91
	August	...	...	91	162	109	3	82	...	59
	September	...	...	59	139	84	13	44	6	51
	October	...	...	51	141	52	15	60	17	43
	November	...	...	43	106	51	19	34	20	30
	December	...	...	30	74	30	17	30	6	17
Total				...	14	930	453	75	350	49	17
1881	January	...	...	17	86	21	10	46	5	21
	February	...	...	21	102	26	14	55	...	23
	March	...	...	23	49	11	21	29	2	14
	April	...	...	14	13	5	5	5	4	...
	May	...	...	5	45	14	8	12	...	1
	June	...	...	16	62	24	6	29	9	1
Total				...	17	362	109	64	176	20	10
Grand total				2,597	1,309	275	847	156	10

Return of the cases of Dysentery in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Cause.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	5	...	2	...	...	3
	July	...	...	3	117	13	23	...	...	77
	August	...	...	77	130	31	45	43	4	50
	September	...	...	50	79	29	24	21	7	48
	October	...	...	48	30	11	7	16	38	6
	November	...	...	6	17	6	5	3	...	9
	December	...	...	9	5	3	1	...	...	10
Total				...	383	93	110	83	87	10
1880	January	...	...	10	7	6	1	2	...	8
	February	...	...	8	3	3	1	3	...	4
	March	...	...	4	8	5	...	2	...	5
	April	...	...	5	7	5	...	1	...	6
	May	...	...	6	18	7	...	7	...	10
	June	...	...	10	33	9	2	10	...	22
	July	...	...	22	106	16	3	29	...	80
	August	...	...	80	98	79	3	47	...	49
	September	...	...	49	70	59	11	4	6	39
	October	...	...	39	68	20	9	30	17	31
	November	...	...	31	73	37	14	10	20	23
	December	...	...	23	43	21	12	17	6	10
Total				10	534	267	56	162	49	10
1881	January	...	...	10	55	15	8	23	7	12
	February	...	...	12	79	21	9	47	...	14
	March	...	...	14	31	9	9	14	2	11
	April	...	...	11	8	9	1	4	4	1
	May	...	...	1	20	6	2	3	...	10
	June	...	...	10	31	12	4	13	9	3
Total				10	224	72	33	104	22	3
Grand total				...	1,141	432	199	349	158	3

Return of the cases of Dysentery in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	3	...	1	...	...	...
	November	...	...	2	4	1	...	...	...	2
	December	...	...	5	2	2	1	1	...	5
Total				...	9	3	2	1	...	3
1880	January	...	...	3	...	...	1	...	...	2
	February	...	...	2	...	2	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	6	1	...	...	...	...
	June	...	...	5	6	3	...	...	...	...
	July	...	...	...	...	...	...	8	...	...
	August	...	...	...	11	...	...	...	...	...
	September	...	...	6	15	5	1	5	...	6
	October	...	...	6	21	5	5	9	...	6
	November	...	...	12	6	2	4	5	...	12
	December	...	...	5	20	7	5	7	...	5
Total				3	85	25	16	40	...	7
1881	January	...	...	7	16	3	2	11	...	7
	February	...	...	7	15	2	5	2	...	13
	March	...	...	13	16	1	12	13	...	3
	April	...	...	3	7	2	4	1	...	3
	May	...	...	3	19	6	6	5	...	5
	June	...	...	5	15	8	2	3	...	7
Total				7	88	22	31	35	...	7
Grand total				...	182	50	49	76	...	7

Return of the cases of Dysentery in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Cas. casus.	
1879	May	...	...	...	113	83	4	1	...	25
	June	...	...	25	114	108	1	14	...	16
	July	...	...	16	223	146	4	58	...	31
	August	...	...	31	199	115	7	60	...	48
	September	...	...	48	120	91	8	53	...	16
	October	...	...	16	91	64	...	25	...	18
	November	...	...	18	33	20	...	20	...	11
	December	...	...	11	20	24	...	6	...	1
Total				...	913	651	24	237	...	1
1880	January	...	...	1	5	4	...	2	...	...
	February	...	...	...	7	4	...	2	...	1
	March	...	...	1	15	6	...	5	...	5
	April	...	...	6	18	4	...	4	...	5
	May	...	...	5	8	6	...	4	...	3
	June	...	...	3	29	16	...	11	...	5
	July	...	...	5	32	16	...	10	...	11
	August	...	...	11	52	30	...	30	...	4
	September	...	...	4	54	20	1	31	...	6
	October	...	...	6	52	27	1	25	...	5
	November	...	...	5	27	12	1	17	...	2
	December	...	...	2	11	6	...	7	...	...
Total				1	311	161	3	148	...	...
1881	January	...	...	...	15	3	...	10	...	2
	February	...	...	2	8	3	...	6	...	1
	March	...	...	1	2	1	...	2	...	...
	April	...	...	...	3	1	...	1	...	1
	May	...	...	1	6	2	...	4	...	1
	June	...	...	1	16	4	...	13	...	...
Total				...	50	14	...	36	...	...
Grand total				...	1,274	826	27	421	...	...

*Return of cases of Abdominal Typhus (Typhoid) in the Medical Establishments
and Regimental Hospitals.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Can- cans.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	1	...	...	...
	September	...	...	...	1	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	1	...	1	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	6	...	2	...	...	4
	September	...	...	4	4	4	4	...	...	...
	October	...	...	...	5	...	...	5	...	...
	November	...	...	...	14	3	2	2	...	7
	December	...	...	7	6	6	2	5	...	...
Total				...	35	13	10	12	...	...
1881	January	...	...	...	5	1	1	2	...	1
	February	...	...	1	55	2	3	4	...	47
	March	...	...	47	26	12	13	23	...	25
	April	...	...	25	18	14	6	15	...	9
	May	...	...	9	25	13	9	6	...	7
	June	...	...	7	7	8	3	3	...	...
Total				...	136	50	34	52	...	...
Grand total				...	172	63	45	64	...	...

*Return of cases of Abdominal Typhus (Typhoid) in the Medical Establishments
and Regimental Hospitals—contd.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Can- sas.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	6	...	2	...	...	4
	September	...	...	4	4	4	4	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	5	2	1	...	...	2
	December	...	...	2	5	6	1	...	...	...
Total				...	20	12	8	...	...	...
1881	January	...	...	...	1	...	1	...	...	...
	February	...	...	...	41	2	2	4	...	33
	March	...	...	33	5	4	6	16	...	12
	April	...	...	12	12	2	2	11	...	9
	May	...	...	9	15	12	7	4	...	1
	June	...	...	1	6	2	3	2	...	...
Total				...	80	22	21	37	...	...
Grand total				...	100	34	29	37	...	...

*Return of cases of Abdominal Typhus (Typhoid) in the Medical Establishments
and Regimental Hospitals—contd.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Cau- casus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	8	1	1	1	...	5
	December	...	...	5	1	...	1	5	...	...
Total				...	9	1	2	6	...	...
1881	January	...	...	...	4	1	...	2	...	1
	February	...	...	1	14	...	1	...	...	14
	March	...	...	14	20	8	7	6	...	13
	April	...	...	13	6	12	3	4	...	...
	May	...	...	...	10	1	2	1	...	6
	June	...	...	6	1	6	...	1	...	...
Total				...	55	28	13	14	...	...
Grand total				...	64	29	15	20	...	...

Return of cases of Abdominal Typhus (Typhoid) in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	1	...	1	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	1	...	1	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	5	...	...	5	...	...
	November	...	...	...	1	...	...	1	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	6	...	...	6	...	...
1881	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	1	...	...	1	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
Total				...	1	...	...	1	...	...
Grand total				...	8	...	1	7	...	...

*Return of cases of Spotted Typhus in the Medical Establishments and
Regimental Hospitals.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Cau- casus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	1	...	1	...	...	...
Total				...	1	...	1	...	...	...
1881	January	...	...	...	2	...	1	1	...	...
	February	...	...	...	94	...	6	18	...	70
	March	...	...	70	143	20	20	68	...	105
	April	...	...	105	79	64	8	46	...	66
	May	...	...	66	24	39	10	34	...	7
	June	...	...	7	14	14	1	4	2	...
Total				...	356	137	46	171	2	...
Grand total				...	357	137	47	171	2	...

Return of cases of Spotted Typhus in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	1	...	1	...	...	...
Total				...	1	...	1	...	...	...
1881	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	66	...	5	13	...	48
	March	...	...	48	80	9	16	24	...	79
	April	...	...	79	66	55	7	31	...	52
	May	...	...	58	18	90	8	20	...	3
	June	...	...	3	14	12	...	3	2	...
Total				...	244	106	36	100	2	...
Grand total				...	245	106	37	100	2	...

Return of cases of Spotted Typhus in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1881	January	...	...	...	2	...	1	1	...	...
	February	...	...	...	23	...	1	...	...	22
	March	...	...	22	57	11	4	38	...	26
	April	...	...	26	13	9	1	15	...	14
	May	...	...	14	6	9	2	5	...	4
	June	...	...	4	...	2	1	1	...	...
Total				...	101	31	10	60	...	...
Grand total				...	101	31	10	60	...	...

Return of cases of Spotted Typhus in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1881	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	5	...	...	5	...	...
	March	...	...	...	6	...	...	6	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
Total				...	11	...	...	11	...	...
Grand total				...	11	...	...	11	...	...

Return of cases of Relapsing Typhus in the Medical Establishments and Regimental Hospitals.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Cause.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	1	...	...	1	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total			...	...	1	...	...	1	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	1	...	...	...	...	1
	November	...	...	1	23	2	2	1	1	18
	December	...	...	18	22	11	...	5	1	23
Total			...	...	46	13	2	6	2	23
1881	January	...	...	23	44	26	2	10	5	24
	February	...	...	24	148	37	5	16	3	111
	March	...	...	111	307	106	20	72	24	196
	April	...	...	196	247	156	15	64	39	169
	May	...	...	169	161	143	3	48	41	95
	June	...	...	95	83	89	9	22	50	8
Total			...	23	990	557	54	232	162	8
Grand total			...	...	1,037	570	56	239	164	8

*Return of cases of Relapsing Typhus in the Medical Establishments and
Regimental Hospitals—contd.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Can- cassus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	18	2	1	...	1	14
	December	...	...	14	8	7	...	1	1	13
Total				...	26	9	1	1	2	13
1881	January	...	...	13	24	15	1	...	5	16
	February	...	...	16	106	28	5	10	3	76
	March	...	...	76	181	70	14	30	24	126
	April	...	...	126	146	82	6	23	39	122
	May	...	...	122	141	122	2	22	41	76
	June	...	...	76	70	77	8	6	50	5
Total				13	675	394	36	91	162	5
Grand total				...	701	403	37	92	164	5

*Return of cases of Relapsing Typhus in the Medical Establishments and
Regimental Hospitals—contd.*

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died	TRANSFERRED		Remaining on las day of month.
							To other medical es- tablishments in district.	To the Cau- casus.	
1879	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...
Total			...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	1	...	...	...	...	1
	December	...	4	5 14	...	1 ...	1 4	...	4 10
Total			...	20	4	1	5	...	10
1881	January	...	10	20	11	1	10	...	8
	February	...	8	41	9	...	5	...	35
	March	...	35	115	36	6	38	...	70
	April	...	70	92	74	9	32	...	47
	May	...	47	19	21	1	25	...	19
	June	...	19	13	12	1	16	...	3
Total			...	10	300	163	126	...	3
Grand total			...	...	320	167	131	...	3

Return of cases of Relapsing Typhus in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	1	...	...	1	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	1	...	...	1	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	1	...	...	1	...	...
Total				...	1	...	...	1	...	...
1881	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	1	...	...	1	...	...
	March	...	...	...	4	...	...	4	...	...
	April	...	...	...	9	...	...	9	...	...
	May	...	...	...	1	...	...	1	...	...
	June	...	...	...	...	...	...	...	...	...
Total				...	15	...	...	15	...	...
Grand total				...	17	...	...	17	...	...

Return of cases of Typhus in undetermined forms in the Medical Establishments and Regimental Hospitals.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualties.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	3	...	...	...	...	3
	February	...	...	...	3	2	1	...	...	3
	March	...	...	...	3	2	...	...	...	3
	April	...	...	...	3	3	...	...	...	3
	May	...	...	...	9	3	...	...	...	9
	June	...	...	...	2	5	...	...	...	6
	July	...	...	6	...	2	...	4	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	5	...	...	...	...	5
	October	...	...	5	2	5	...	...	...	2
	November	...	...	2	13	1	3	7	...	4
	December	...	...	4	13	1	2	11	...	3
Total				...	66	23	8	30	...	5
1881	January	...	...	5	14	6	1	2	4	...
	February	...	...	6	197	24	13	58	3	105
	March	...	...	105	236	85	21	142	1	92
	April	...	...	92	155	52	4	108	2	81
	May	...	...	81	105	66	1	99	...	20
	June	...	...	20	50	25	1	30	8	6
Total				...	5	757	258	41	439	18
Grand total				...	...	823	281	49	469	18

Return of cases of Typhus in undetermined forms in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualties.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	3	...	...	...	...	3
	February	...	...	3	3	2	1	...	...	3
	March	...	...	3	2	2	...	...	...	3
	April	...	...	3	9	3	...	...	...	9
	May	...	...	9	2	5	...	...	...	6
	June	...	...	6	...	2	...	4	...	...
	July	...	...	...	5	...	...	...	...	5
	August	...	...	...	2	5	...	...	...	2
	September	...	...	5	3	...	3	...	...	2
	October	...	...	2	1	...	1	...	...	2
	November	...	...	2	5	1	2	...	...	4
	December	...	...	2	...	...	...	...	...	...
Total				...	35	20	7	4	...	4
1881	January	...	...	4	13	6	...	1	4	6
	February	...	...	6	163	23	13	45	3	90
	March	...	...	90	194	76	20	102	1	85
	April	...	...	85	91	47	4	52	2	71
	May	...	...	71	38	59	...	36	...	14
	June	...	...	14	34	21	...	15	8	4
Total				4	538	232	37	251	18	4
Grand total				...	573	252	44	255	18	4

Return of cases of Typhus in undetermined forms in the Medical Establishments and Regimental Hospitals—contd.

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.	
							To other medical establishments in district.	To the Caucasus.		
1879	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...
Total		...	...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	2	4	...	2	...	2
	December	...	...	1	1	1	2	...	1
Total		...	...	7	2	...	4	...	4
1881	January	1	1
	February	16	1	...	15
	March	15	11	9	1	9	...	7
	April	7	10	5	...	5	...	7
	May	7	15	7	1	8	...	6
	June	6	1	4	1	2
Total		...	1	53	25	4	23	...	2	
Grand total		...	...	60	27	4	27	...	2

Return of cases of Typhus in undetermined forms in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical es- tablishments in district.	To the Cau- casus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total				...	...	...	...	...	...	...
1880	January	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	6	1	...	5	...	...
	November	...	...	...	10	...	1	9	...	...
	December	...	...	...	8	...	...	8	...	...
Total				...	24	1	1	22	...	...
1881	January	...	...	...	1	...	...	1	...	...
	February	...	...	...	13	1	...	12	...	...
	March	...	...	...	31	...	...	31	...	...
	April	...	...	...	54	...	...	51	...	3
	May	...	...	3	52	...	...	55	...	...
	June	...	...	...	15	...	...	15	...	...
Total				...	166	1	...	165	...	...
Grand total				...	190	2	1	187	...	...

Return of cases of Enteric Catarrh in the Medical Establishments and Regimental Hospitals.

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.	
							To other medical es- tablishments in district.	To the Cau- casus.		
1879	May	...	...	466	400	...	7	...	59	
	June	...	...	59	821	754	2	33	91	
	July	...	...	91	873	639	12	52	215	
	August	...	...	215	745	539	14	197	160	
	September	...	...	160	545	435	18	83	160	
	October	...	...	160	393	356	12	66	85	
	November	...	...	85	186	158	7	68	32	
	December	...	...	32	111	97	3	16	27	
Total			...	4,140	3,408	68	522	115	27	
1880	January	...	...	27	97	76	2	14	...	32
	February	...	...	32	152	99	...	44	...	41
	March	...	...	41	124	128	1	6	...	30
	April	...	...	30	118	105	1	17	...	25
	May	...	...	25	208	142	...	56	...	35
	June	...	...	35	253	197	1	46	...	44
	July	...	...	44	352	270	3	52	...	71
	August	...	...	71	688	511	4	101	...	143
	September	...	...	143	654	490	14	101	15	177
	October	...	...	177	612	445	21	148	54	121
	November	...	...	121	461	337	11	92	23	119
	December	...	...	119	399	323	11	101	20	63
Total			...	27	4,118	3,123	69	778	112	63
1881	January	...	...	63	469	264	9	133	16	110
	February	...	...	110	491	232	6	244	8	111
	March	...	...	111	271	173	8	84	27	90
	April	...	...	90	241	158	5	49	55	64
	May	...	...	64	328	230	...	67	13	82
	June	...	...	82	423	284	5	84	27	105
Total			...	63	2,223	1,341	33	661	146	105
Grand total			...	...	10,481	7,872	170	1,961	373	105

*Return of cases of Enteric Catarrh in the Medical Establishments and
Regimental Hospitals—contd.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Can- census.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	36	11	2	...	...	23
	July	...	...	23	133	30	11	...	16	99
	August	...	...	99	130	50	14	47	50	64
	September	...	...	68	133	43	18	25	9	103
	October	...	...	106	55	33	12	35	34	47
	November	...	...	47	29	14	7	36	6	13
	December	...	...	13	17	6	3	...	...	21
Total				...	533	187	67	143	115	21
1880	January	...	...	21	13	17	2	3	...	12
	February	...	...	12	21	13	...	4	...	16
	March	...	...	16	18	15	...	2	...	17
	April	...	...	17	20	18	...	4	...	15
	May	...	...	15	13	12	...	12	...	4
	June	...	...	4	36	8	1	8	...	23
	July	...	...	23	40	28	3	10	...	22
	August	...	...	22	98	40	2	23	...	55
	September	...	...	55	126	80	9	1	15	76
	October	...	...	76	159	76	13	26	54	66
	November	...	...	66	144	75	5	24	23	83
	December	...	...	83	94	73	11	39	20	34
Total				21	782	455	46	156	112	34
1881	January	...	...	34	120	55	4	44	16	35
	February	...	...	35	186	51	6	105	8	51
	March	...	...	51	130	49	6	42	27	57
	April	...	...	57	96	46	3	20	55	29
	May	...	...	29	95	59	...	19	13	33
	June	...	...	33	123	72	4	22	27	31
Total				34	750	332	23	252	146	31
Grand total				...	2,065	974	136	551	373	31

*Return of cases of Enteric Catarrh in the Medical Establishments and
Regimental Hospitals—contd.*

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
							To other medical es- tablishments in district.	To the Cat- tarrhus.	
1879	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	1	2	...	1	...	1
	December	...	...	2	2	2	...	...	2
Total			...	5	2	...	1	...	2
1880	January	...	2	4	3	...	...	...	3
	February	...	3	2	3	...	...	...	2
	March	...	2	1	1	1	...	...	1
	April	...	1	1	1	1	...	...	...
	May	...	...	...	...	...	...	...	...
	June	...	...	1	...	...	1	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	7	2	2	1	...	2
	September	...	2	81	37	5	24	...	17
	October	...	17	76	35	7	37	...	14
	November	...	14	31	21	4	14	...	6
	December	...	6	39	15	...	19	...	11
Total			2	243	118	20	96	...	11
1881	January	...	11	86	22	4	57	...	14
	February	...	14	51	24	...	8	...	33
	March	...	33	38	25	2	27	...	17
	April	...	17	18	12	2	11	...	10
	May	...	10	16	5	...	8	...	13
	June	...	13	28	22	1	9	...	9
Total			11	237	110	9	120	...	9
Grand total			...	485	230	29	217	...	9

*Return of cases of Enteric Catarrh in the Medical Establishments and
Regimental Hospitals—concl'd.*

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.	
								To other medical es- tablishments in district.	To the Cau- casus.		
1879	May	...	...	...	466	400	...	7	...	59
	June	...	...	59	785	743	...	33	...	68
	July	...	...	68	740	639	1	52	...	116
	August	...	...	116	615	489	...	150	...	92
	September	...	...	92	412	392	...	58	...	54
	October	...	...	54	337	323	...	31	...	37
	November	...	...	37	155	144	...	31	...	17
	December	...	...	17	92	89	...	16	...	4
Total				...	3,602	3,219	1	378	...	4	
1880	January	...	...	4	80	56	...	11	...	17
	February	...	...	17	129	83	...	40	...	23
	March	...	...	23	105	112	...	4	...	12
	April	...	...	12	97	86	...	13	...	10
	May	...	...	10	195	130	...	44	...	31
	June	...	...	31	216	189	...	37	...	21
	July	...	...	21	312	242	...	42	...	49
	August	...	...	49	583	469	...	77	...	86
	September	...	...	86	447	373	...	76	...	84
	October	...	...	84	377	334	1	85	...	41
	November	...	...	41	286	241	2	54	...	30
	December	...	...	30	266	235	...	43	...	18
Total				...	4	3,093	2,550	3	526	...	18
1881	January	...	...	18	263	187	1	32	...	61
	February	...	...	61	254	157	...	131	...	27
	March	...	...	27	103	99	...	15	...	16
	April	...	...	16	127	100	...	18	...	25
	May	...	...	25	217	166	...	40	...	36
	June	...	...	36	272	190	...	53	...	65
Total				...	18	1,236	899	1	289	...	65
Grand total				7,931	6,668	5	1,193	...	65

Return of cases of Scurvy in the Medical Establishments and Regimental Hospitals.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	8	7	...	...	...	1
	June	...	...	1	23	5	...	8	...	11
	July	...	...	11	143	32	2	24	8	83
	August	...	...	88	176	46	2	51	78	87
	September	...	...	87	322	25	3	215	46	120
	October	...	...	120	141	24	1	41	170	25
	November	...	...	25	110	28	...	46	9	52
	December	...	...	52	119	52	...	41	...	78
Total				...	1,042	219	8	426	311	78
1880	January	...	...	78	26	64	...	5	...	35
	February	...	...	35	9	34	...	5	...	5
	March	...	...	5	11	5	...	1	...	10
	April	...	...	10	16	7	...	9	...	10
	May	...	...	10	51	22	...	17	...	23
	June	...	...	22	123	11	2	93	...	39
	July	...	...	39	186	24	2	120	...	79
	August	...	...	79	251	74	...	204	...	52
	September	...	...	52	151	61	1	34	35	72
	October	...	...	72	285	56	4	186	40	71
	November	...	...	71	201	79	3	88	68	34
	December	...	...	34	70	35	1	20	4	44
Total				78	1,380	472	13	782	147	44
1881	January	...	...	44	191	56	8	46	51	74
	February	...	...	74	195	78	...	126	11	54
	March	...	...	54	331	65	6	174	22	118
	April	...	...	118	271	59	4	84	183	59
	May	...	...	59	126	57	2	39	10	77
	June	...	...	77	112	41	5	34	67	42
Total				44	1,226	356	25	503	344	42
Grand total				...	3,648	1,047	46	1,711	802	43

Return of cases of Scurvy in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	9	...	...	...	...	9
	July	...	...	9	71	6	2	...	8	64
	August	...	...	63	115	4	2	36	73	59
	September	...	...	59	215	6	2	138	46	112
	October	...	...	112	101	5	1	27	170	10
	November	...	...	10	45	3	...	14	9	29
	December	...	...	29	52	29	...	...	...	52
Total				...	638	53	7	215	311	52
1880	January	...	...	52	5	29	...	2	...	26
	February	...	...	26	...	20	...	2	...	4
	March	...	...	4	5	4	...	...	...	5
	April	...	...	5	13	3	...	6	...	9
	May	...	...	9	18	7	...	8	...	12
	June	...	...	12	82	5	2	53	...	34
	July	...	...	34	141	12	2	99	...	62
	August	...	...	62	178	44	...	162	...	34
	September	...	...	34	71	20	1	4	35	45
	October	...	...	45	149	24	...	97	40	33
	November	...	...	33	142	39	2	35	68	31
	December	...	...	31	54	27	1	12	4	41
Total				52	858	234	8	480	147	41
1881	January	...	...	41	146	44	8	19	51	65
	February	...	...	65	140	71	...	92	11	31
	March	...	...	31	251	40	4	113	22	103
	April	...	...	103	246	54	2	55	183	55
	May	...	...	55	98	53	1	25	10	64
	June	...	...	64	82	33	5	19	67	22
Total				41	963	295	20	323	344	22
Grand total				...	2,459	582	35	1,018	802	22

Return of cases of Scurvy in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	13	...	...	4	...	9
	December	...	...	9	13	5	...	11	...	6
Total				...	26	5	...	15	...	6
1880	January	...	...	6	5	7	...	...	...	4
	February	...	...	4	2	5	...	...	...	1
	March	...	...	1	4	1	...	...	...	4
	April	...	...	4	...	2	...	2	...	...
	May	...	...	...	6	...	...	2	...	4
	June	...	...	4	10	...	...	14	...	...
	July	...	...	...	6	...	...	...	...	...
	August	...	...	...	6	1	...	3	...	2
	September	...	...	...	2	26	2	4	19	3
	October	...	...	2	15	2	1	13	...	2
	November	...	...	3	10	5	...	5	...	2
	December	...	...	2	...	...	...	...	...	...
Total				...	6	90	25	5	64	3
1881	January	...	...	2	15	1	...	13	...	3
	February	...	...	3	36	4	...	15	...	20
	March	...	...	20	63	14	2	53	...	14
	April	...	...	14	14	3	2	21	...	2
	May	...	...	2	14	...	1	5	...	10
	June	...	...	10	16	...	...	7	...	19
Total				...	2	158	22	5	114	19
Grand total				...	...	274	52	10	193	19

Return of cases of Scurvy in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	8	7	...	...	...	1
	June	...	...	1	14	5	...	8	...	2
	July	...	...	2	72	26	...	24	...	24
	August	...	...	24	61	42	...	15	...	28
	September	...	...	28	77	19	1	77	...	8
	October	...	...	8	40	19	...	14	...	15
	November	...	...	15	52	25	...	28	...	14
	December	...	...	14	54	18	...	30	...	20
Total				...	378	161	1	196	...	20
1880	January	...	...	20	16	28	...	3	...	5
	February	...	...	5	7	9	...	3	...	...
	March	...	...	...	2	...	...	1	...	1
	April	...	...	1	3	2	...	1	...	1
	May	...	...	1	27	15	...	7	...	6
	June	...	...	6	31	6	...	26	...	5
	July	...	...	5	45	12	...	21	...	17
	August	...	...	17	67	30	...	36	...	18
	September	...	...	18	75	41	...	27	...	25
	October	...	...	25	110	30	...	70	...	35
	November	...	...	35	44	38	...	40	...	1
	December	...	...	1	6	3	...	3	...	1
Total				20	433	214	...	238	...	1
1881	January	...	...	1	33	11	...	14	...	6
	February	...	...	6	19	3	...	19	...	3
	March	...	...	3	17	11	...	8	...	1
	April	...	...	1	11	2	...	8	...	2
	May	...	...	2	14	4	...	9	...	3
	June	...	...	3	14	8	...	8	...	1
Total				1	105	39	...	66	...	1
Grand total				...	916	414	1	500	...	1

Return of cases of Eye-diseases in the Medical Establishments and Regimental Hospitals.

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.	
							To other medical establishments in district.	To the Casualty.		
1879	May	...	...	88	73	...	2	...	13
	June	...	...	13	161	136	17	...	21
	July	...	...	21	111	106	5	1	20
	August	...	...	20	90	79	10	...	21
	September	...	...	21	27	36	1	...	11
	October	...	...	11	32	33	5	2	3
	November	...	...	3	78	22	14	...	45
	December	...	...	45	13	49	4	...	5
Total			...	600	534	...	58	3	5	
1880	January	...	...	5	31	26	3	...	7
	February	...	...	7	42	36	...	...	13
	March	...	...	13	47	35	8	...	17
	April	...	...	17	46	47	8	...	8
	May	...	...	8	65	42	16	...	15
	June	...	...	15	78	72	9	...	12
	July	...	...	12	92	78	6	...	20
	August	...	...	20	67	36	28	...	23
	September	...	...	23	141	112	23	...	29
	October	...	...	29	84	54	20	5	34
	November	...	...	34	59	50	17	8	18
	December	...	...	18	49	40	11	1	15
Total			...	5	801	628	...	149	14	15
1881	January	...	...	15	57	31	20	1	20
	February	...	...	20	68	45	17	8	18
	March	...	...	18	98	52	25	4	35
	April	...	...	35	58	48	11	5	29
	May	...	...	29	62	44	16	5	26
	June	...	...	26	40	37	7	17	5
Total			...	15	383	257	...	96	40	5
Grand total			1,784	1,419	...	303	57	5

Return of cases of Eye-diseases in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	15	7	...	...	...	...
	June	...	...	...	14	11	...	...	...	8
	July	...	...	8	14	11	...	...	1	10
	August	...	...	10	12	15	...	2	...	5
	September	...	...	5	5	2	...	...	...	8
	October	...	...	8	5	5	...	5	2	1
	November	...	...	1	1	1	...	...	...	1
	December	...	...	1	3	1	...	...	...	3
Total				...	55	42	...	7	3	3
1880	January	...	...	3	4	4	...	...	...	3
	February	...	...	3	5	2	...	...	...	3
	March	...	...	6	6	9	...	...	...	6
	April	...	...	3	8	6	...	...	...	5
	May	...	...	5	15	11	...	3	...	6
	June	...	...	6	4	2	...	4	...	4
	July	...	...	4	3	4	...	...	...	3
	August	...	...	3	5	2	...	1	...	5
	September	...	...	5	14	14	...	...	...	5
	October	...	...	5	21	5	...	1	5	15
	November	...	...	15	20	14	...	3	8	10
	December	...	...	10	14	10	...	4	1	9
Total				3	119	83	...	16	14	9
1881	January	...	...	9	23	17	...	2	1	12
	February	...	...	12	24	15	...	4	8	9
	March	...	...	9	47	23	...	2	4	27
	April	...	...	27	18	21	...	4	5	15
	May	...	...	15	26	17	...	2	5	17
	June	...	...	17	18	17	...	...	17	1
Total				9	156	110	...	14	40	1
Grand total				...	330	235	...	37	57	1

Return of cases of Eye-diseases in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	1	...	...	...	...	...
Total				...	1	...	...	...	...	1
1880	January	...	...	1	2	2	...	...	...	1
	February	...	...	1	...	...	...	...	...	1
	March	...	...	1	2	1	...	...	...	2
	April	...	...	2	...	1	...	...	...	1
	May	...	...	1	...	...	...	1	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	2	...	...
	September	...	...	...	5	3	...	...	...	...
	October	...	...	...	...	1	...	...	...	...
	November	...	...	...	1	1	...	...	...	...
	December	...	...	...	3	1	...	1	...	1
Total				1	13	9	...	4	...	1
1881	January	...	...	1	9	1	...	7	...	2
	February	...	...	2	10	7	...	2	...	3
	March	...	...	3	4	5	...	1	...	1
	April	...	...	1	7	5	...	2	...	1
	May	...	...	1	13	4	...	2	...	8
	June	...	...	8	5	12	...	...	...	1
Total				1	48	34	...	14	...	1
Grand total				...	62	43	...	18	...	1

Return of cases of Eye-diseases in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Casualty.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	15	7	...	...	...	8
	July	...	...	8	14	11	...	...	1	10
	August	...	...	10	12	15	...	2	...	5
	September	...	...	5	5	13	...	...	...	8
	October	...	...	8	5	5	...	5	2	1
	November	...	...	1	1	1	...	...	...	1
	December	...	...	1	3	1	...	...	...	3
Total				...	55	42	...	7	3	3
1880	January	...	...	3	4	4	...	...	...	3
	February	...	...	3	5	2	...	...	...	3
	March	...	...	6	6	9	...	...	...	6
	April	...	...	3	8	6	...	...	...	5
	May	...	...	5	15	11	...	3	...	6
	June	...	...	6	4	2	...	4	...	4
	July	...	...	4	3	4	...	...	...	3
	August	...	...	3	5	2	...	1	...	5
	September	...	...	5	14	14	...	...	...	5
	October	...	...	5	21	5	...	1	5	15
	November	...	...	15	20	14	...	3	8	10
	December	...	...	10	14	10	...	4	1	9
Total				3	119	83	...	16	14	9
1881	January	...	...	9	23	17	...	2	1	12
	February	...	...	12	24	15	...	4	8	9
	March	...	...	9	47	23	...	2	4	27
	April	...	...	27	18	21	...	4	5	15
	May	...	...	15	26	17	...	2	5	17
	June	...	...	17	18	17	...	...	17	1
Total				9	156	110	...	14	40	1
Grand total				...	330	235	...	37	57	1

Return of cases of Eye-diseases in the Medical Establishments and Regimental Hospitals—contd.

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
							To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...
	December	...	...	1	...	...	...	...	...
Total			...	1	...	...	...	...	1
1880	January	...	1	2	2	...	...	...	1
	February	...	1	...	...	...	...	...	1
	March	...	1	2	1	...	...	...	2
	April	...	2	...	1	...	...	...	1
	May	...	1	...	...	...	1	...	...
	June	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...
	September	...	...	5	3	...	2	...	...
	October	...	...	...	...	...	...	...	...
	November	...	...	1	1	...	...	...	...
	December	...	...	3	1	...	1	...	1
Total			1	13	9	...	4	...	1
1881	January	...	1	9	1	...	7	...	2
	February	...	2	10	7	...	2	...	3
	March	...	3	4	5	...	1	...	1
	April	...	1	7	5	...	2	...	1
	May	...	1	13	4	...	2	...	8
	June	...	8	5	12	...	...	...	1
Total			1	48	34	...	14	...	1
Grand total			...	62	43	...	18	...	1

Return of cases of Eye-diseases in the Medical Establishments and Regimental Hospitals—concl.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED.		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	88	73	...	2	...	13
	June	...	...	13	146	129	...	17	...	13
	July	...	...	13	97	95	...	5	...	10
	August	...	...	10	78	64	...	8	...	16
	September	...	...	16	22	34	...	1	...	3
	October	...	...	3	27	28	...	...	...	2
	November	...	...	2	77	21	...	14	...	44
	December	...	...	44	9	48	...	4	...	1
Total				...	544	492	...	51	...	1
1880	January	...	...	1	25	20	...	3	...	3
	February	...	...	3	37	34	...	...	...	6
	March	...	...	6	39	25	...	8	...	12
	April	...	...	12	38	4	...	8	...	2
	May	...	...	2	50	31	...	12	...	9
	June	...	...	9	74	70	...	5	...	8
	July	...	...	8	89	74	...	6	...	17
	August	...	...	17	62	34	...	27	...	18
	September	...	...	18	127	98	...	23	...	24
	October	...	...	24	63	49	...	19	...	19
	November	...	...	19	39	36	...	14	...	8
	December	...	...	8	32	29	...	6	...	5
Total				1	675	540	...	131	...	5
1881	January	...	...	5	25	13	...	11	...	6
	February	...	...	6	34	23	...	11	...	6
	March	...	...	6	47	24	...	22	...	7
	April	...	...	7	33	22	...	5	...	13
	May	...	...	13	23	23	...	12	...	1
	June	...	...	1	17	8	...	7	...	3
Total				5	179	113	...	68	...	3
Grand total				...	1,398	1,145	...	250	...	3

Return of cases of all other diseases in the Medical Establishments and Regimental Hospitals.

Months.			Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
							To other medical establishments in district.	To the Casualty.	
1879	May	...	...	391	307	...	21	...	63
	June	...	63	390	263	2	77	...	111
	July	...	111	618	396	12	98	38	215
	August	...	215	763	636	5	117	35	185
	September	...	185	509	397	5	136	9	147
	October	...	147	452	368	5	70	41	115
	November	...	115	418	335	2	83	7	106
	December	...	106	508	370	5	96	...	143
Total			...	4,079	3,072	36	698	130	143
1880	January	...	143	497	411	3	78	...	148
	February	...	148	403	368	1	61	...	121
	March	...	121	457	448	2	39	...	89
	April	...	89	309	250	...	49	...	99
	May	...	99	510	374	4	121	...	140
	June	...	140	565	459	2	119	...	125
	July	...	125	809	700	...	135	...	99
	August	...	99	994	514	...	263	...	316
	September	...	316	1,056	832	4	210	29	297
	October	...	297	1,000	766	8	219	49	255
	November	...	255	710	543	10	178	19	215
	December	...	215	749	562	4	181	19	198
Total			143	8,089	6,227	38	1,653	116	198
1881	January	...	198	1,030	573	8	346	34	267
	February	...	267	1,177	627	16	437	75	283
	March	...	283	1,081	571	15	417	64	302
	April	...	302	977	500	15	309	193	262
	May	...	262	572	380	7	151	86	190
	June	...	190	412	320	7	84	125	66
Total			198	5,228	2,971	68	1,744	577	66
Grand total			...	17,396	12,270	142	4,095	823	66

Return of cases of all other diseases in the Medical Establishments and Regimental Hospitals—contd.

Months.			Number on 1st day of month.	Admitted.	Discharged.	Died.	TRANSFERRED		Remaining on last day of month.
							To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	...	...	...	...	...
	June	...	...	79	18	1	...	...	60
	July	...	60	139	53	11	...	38	97
	August	...	97	112	81	3	22	35	68
	September	...	68	105	49	4	35	9	76
	October	...	76	69	32	5	26	41	41
	November	...	41	44	24	2	26	7	26
	December	...	26	36	20	4	...	...	38
Total			...	584	277	30	109	130	38
1880	January	...	38	57	36	2	5	...	52
	February	...	52	51	35	...	19	...	49
	March	...	49	52	59	1	1	...	40
	April	...	40	61	52	...	5	...	44
	May	...	41	135	83	3	26	...	67
	June	...	67	91	35	2	58	...	63
	July	...	63	129	67	...	78	...	47
	August	...	47	241	79	...	96	...	113
	September	...	113	139	66	2	28	29	127
	October	...	127	182	108	4	23	49	125
	November	...	125	180	132	6	25	19	123
	December	...	123	207	163	2	51	19	95
Total			38	1,525	915	22	415	116	59
1881	January	...	95	322	138	5	114	34	126
	February	...	126	481	193	13	172	75	154
	March	...	154	446	213	9	115	64	199
	April	...	199	529	246	12	129	193	148
	May	...	148	293	162	5	74	86	114
	June	...	114	213	152	4	23	125	23
Total			95	2,284	1,104	48	627	577	23
Grand total			...	4,393	2,296	100	1,151	823	23

Return of cases of all other diseases in the Medical Establishments and Regimental Hospitals—contd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Cav- casus.	
1879	May	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	3	9	...	...	...	3
	November	...	...	...	9	2	...	1	...	9
	December	...	...	9	21	14	1	4	...	11
Total				...	33	16	1	5	...	11
1880	January	...	...	11	19	14	1	...	...	15
	February	...	...	15	23	23	1	1	...	13
	March	...	...	13	16	16	1	...	...	13
	April	...	...	12	18	9	...	5	...	16
	May	...	...	16	16	11	1	5	...	15
	June	...	...	15	3	7	...	11	...	...
	July	...	...	...	...	...	...	...	...	...
	August	...	...	...	11	4	...	2	...	5
	September	...	...	5	63	22	2	23	...	21
	October	...	...	21	55	23	4	30	...	19
	November	...	...	19	79	35	4	37	...	22
	December	...	...	22	136	64	2	50	...	43
Total				11	439	228	16	164	...	43
1881	January	...	...	42	162	52	3	109	...	40
	February	...	...	40	124	73	3	19	...	69
	March	...	...	69	206	61	6	145	...	63
	April	...	...	63	106	55	3	83	...	28
	May	...	...	28	36	29	2	6	...	27
	June	...	...	27	57	49	3	9	...	23
Total				42	691	319	20	371	...	23
Grand total				...	1,163	563	37	540	...	23

Return of cases of all other diseases in the Medical Establishments and Regimental Hospitals—concl'd.

Months.				Number on 1st day of month.	Admitted.	Discharged cured.	Died.	TRANSFERRED		Remaining on last day of month.
								To other medical establishments in district.	To the Caucasus.	
1879	May	...	...	...	391	307	...	21	...	63
	June	...	...	63	311	245	1	77	...	51
	July	...	...	51	509	343	1	98	...	118
	August	...	...	118	651	555	2	95	...	117
	September	...	...	117	404	348	1	101	...	71
	October	...	...	71	380	336	...	44	...	71
	November	...	...	71	365	309	...	56	...	71
	December	...	...	71	451	336	...	92	...	94
Total				...	3,462	2,779	5	584	...	94
1880	January	...	...	94	421	361	...	73	...	81
	February	...	...	81	329	310	...	41	...	59
	March	...	...	59	389	373	...	38	...	37
	April	...	...	37	230	189	...	39	...	39
	May	...	...	39	389	280	...	90	...	58
	June	...	...	58	471	417	...	50	...	62
	July	...	...	62	680	633	...	57	...	52
	August	...	...	52	742	431	...	165	...	198
	September	...	...	198	854	744	...	159	...	149
	October	...	...	149	763	635	...	166	...	111
	November	...	...	111	451	376	...	116	...	70
	December	...	...	70	406	335	...	80	...	61
Total				94	6,125	5,084	...	1,074	...	61
1881	January	...	...	61	546	383	...	123	...	101
	February	...	...	101	571	361	...	246	...	65
	March	...	...	65	429	297	...	157	...	40
	April	...	...	40	342	199	...	97	...	86
	May	...	...	86	223	189	...	71	...	49
	June	...	...	49	142	119	...	52	...	20
Total				61	2,253	1,548	...	746	...	20
Grand total				...	11,810	9,411	5	2,405	...	20

APPENDIX CI.

RETURN OF THE SICK AND WOUNDED IN REGIMENTAL HOSPITALS, TEMPORARY
FIELD HOSPITALS, AND INFIRMARIES IN TRANS-CASPIA DURING THE AKHÁL-
TEKKE EXPEDITION FROM 1ST (13TH) MAY 1879 TO 1ST (13TH) JULY
1881.

N.B.—In this Return are included the men of those Corps of the Expeditionary Force who were received into the Medical Establishments in the Caucasus.

Corps.	SICK.				WOUNDED.			
	1st (13th) May 1879 to 1st (13th) July 1881.				1st (13th) May 1879 to 1st (13th) July 1881.			
	Admitted.	Discharged.	Died.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
13th (Eriván) Life-Guard Grenadiers ...	49	48	1	...	27	20	7	...
14th (Georgian) Grenadiers ...	35	29	6	...	30	22	8	...
73rd (Crimean) Regiment ...	742	631	33	78	18	16	...	2
74th (Stávropol) Regiment ...	784	674	46	64	89	61	24	4
75th (Sevastópol) Regiment ...	9	8	1	...	...	...	...	...
77th (Tengá) Regiment ...	1	1	...	...	1	1	...	...
78th (Navága) Regiment ...	194	145	22	27	...	...	...	...
79th (Kura) Regiment ...	45	21	14	10	26	23	1	2
80th (Kabarda) Regiment ...	29	17	12	...	44	41	3	...
81st (Apsheron) Regiment ...	1,010	916	84	...	102	83	13	6
82nd (Daghistán) Regiment ...	902	844	58	...	61	43	15	8
83rd (Sámur) Regiment ...	897	809	88	...	33	28	1	4
84th (Shirván) Regiment ...	866	791	66	9	135	108	25	2
161st (Alexandropol) Regiment ...	55	33	20	2	...	...	...	...
162nd (Akhálsikh) Regiment ...	82	50	25	7	1	1	...	...
Mixed Caucasus Rifle Battalion ...	37	27	10	...	1	1	...	...
2nd Caucasus Line Battalion ...	1	1	...	...	...	...	...	...
6th Caucasus Line Battalion ...	5	5	...	...	...	...	...	...
7th Caucasus Line Battalion ...	2	2	...	...	...	...	...	...
15th (Tver) Dragoons ...	30	28	2	...	35	27	8	...

Return of the Sick and Wounded in Regimental Hospitals, temporary Field Hospitals, and Infirmarys in Trans-Caspia—contd.

Corps.			SICK.				WOUNDED.			
			1st (13th) May 1879 to 1st (13th) July 1881.				1st (13th) May 1879 to 1st (13th) July 1881.			
			Admitted.	Discharged.	Died.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
16th (Niji-Gorod) Dragoons	...	...	...	...	...	...	1	1	...	...
18th (Pereyasláv) Dragoons	...	...	29	25	4	...	12	12	...	...
Poltáva Cossacks	...	...	299	272	27	...	5	3	2	...
Lába Cossacks	...	...	67	63	4	...	8	5	3	...
Volga Cossacks	...	...	22	20	2	...	1	1	...	...
Taman Cossacks	...	...	601	541	42	18	32	23	5	4
Daghistán Irregular Cavalry Regiment	...	...	63	51	12	...	1	1	...	...
Caucasus Grenadier Artillery Brigade	...	...	3	1	2	...	1	...	1	...
19th Artillery Brigade	...	...	66	54	4	8	9	5	4	...
20th Artillery Brigade	...	...	177	150	27	...	4	4	...	...
21st Artillery Brigade	...	...	283	216	26	11	14	6	5	3
39th Artillery Brigade	...	...	1	1	...	...	...	...	...	...
1st Terek Cossack H. A. Battery	...	...	7	6	1	...	...	...	...	...
Horse Mountain Division	...	...	18	17	1	...	...	...	...	...
1st Mobile Battery	...	...	11	11	...	...	2	2	...	...
2nd Mobile Battery	...	...	...	...	...	...	1	1	...	...
3rd Mobile Battery	...	...	4	4	...	...	1	1	...	...
45th Divisional Ammunition Column	...	...	55	40	10	5	3	3	...	...
Gunib Fortress Artillery	...	...	131	125	6	...	...	...	...	...
Krásnovodsk Fortress Artillery	...	...	18	13	5	...	...	...	...	...
Petrovsk Fortress Artillery	...	...	1	...	1	...	...	...	...	...
Tiflis Artillery Depôt	...	...	1	1	...	...	...	...	...	...
Caucasus Field Telegraph Park	...	...	26	26	...	...	...	...	...	...
Heliographic Detachments	...	...	54	52	2	...	2	1	1	...

Return of the Sick and Wounded in Regimental Hospitals, temporary Field Hospitals, and Infirmaries in Trans-Caspia—contd.

Corps.				SICK.				WOUNDED.			
				1st (13th) May 1879 to 1st (13th) July 1881.				1st (13th) May 1879 to 1st (13th) July 1881.			
				Admitted.	Discharged.	Died.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
1st Caucasus Sapper Battalion	...	...	...	1	1	...	...	...	...	...	...
2nd Caucasus Sapper Battalion	...	...	...	193	173	12	8	18	12	6	...
3rd Caucasus Sapper Battalion	...	...	...	1	1	...	...	...	...	...	...
2nd Caucasus Engineer Detachment	...	...	...	14	13	...	1	...	...	...	...
Askhabád Artillery Depôt	...	...	...	4	3	...	1	...	...	...	...
Petrovsk Supply-Depôt	...	...	...	1	1	...	...	...	...	...	...
<i>Jigits</i> ...	...	...	...	7	6	1	...	...	...	...	...
1st Railway Reserve Battalion	...	...	...	605	556	15	34	5	5	...	...
5th Gendarme Cadre Detachment	...	...	...	34	34	...	...	1	1	...	...
Transport of the Force	...	...	...	261	215	42	4	11	10	1	...
19th Divisional Infirmary	...	...	...	2	2	...	...	...	...	...	...
21st Divisional Infirmary	...	...	...	21	20	1	...	...	...	...	...
Trans-Caspian Local Battalion	...	...	...	158	140	18	...	40	32	8	...
Krásnovodsk Local Battalion	...	...	...	638	580	33	25	12	9	2	1
Darband Local Detachment	...	...	...	2	2	...	...	...	...	...	...
Nukha Local Detachment	...	...	...	2	2	...	...	...	...	...	...
Alexandrovsk Local Detachment	...	...	...	25	22	1	2	1	1	...	...
Yelisavetpol Local Detachment	...	...	...	2	2	...	...	...	...	...	...
Shemakha Local Detachment	...	...	...	2	1	1	...	...	...	...	...
Kubán Local Detachment	...	...	...	1	1	...	...	...	...	...	...
Kazákh Local Detachment	...	...	...	1	1	...	...	...	...	...	...
Burtunaeff Local Detachment	...	...	...	1	1	...	...	...	...	...	...
Vladikávkáz Local Detachment	...	...	...	1	1	...	...	...	...	...	...
Escort Detachments	...	...	...	...	...	...	...	1	1	...	...

Return of the Sick and Wounded in Regimental Hospitals, temporary Field Hospitals, and Infirmeries in Trans-Caspia—concl'd.

Corps.	SICK.				WOUNDED.			
	1st (13th) May 1879 to 1st (13th) July 1881.				1st (13th) May 1879 to 1st (13th) July 1879.			
	Admitted.	Discharged.	Died.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Intendance of the Force	28	26	2	...	...	...	...	...
Staff of the Force	45	44	1	...	6	1	5	...
Caspian Naval Flotilla	38	35	3	...	7	6	1	...
Military Hospital Detachments	802	727	49	26	2	2	...	...
Supply-Depôts	58	55	3	...	...	...	...	...
Government Treasurers	3	3	...	...	...	...	...	...
64th (Uglitz) Regiment	1	1	...	...	1	1	...	...
119th (Kolomno) Regiment	1	1	...	...	...	...	...	...
159th (Georgian) Regiment	...	...	...	...	1	1	...	...
Grenadier Regiment of Life Guards	1	...	1	...	...	...	...	...
4th Turkistán Line Battalion	1	...	1	...	...	...	...	...
5th Turkistán Line Battalion	11	10	1	...	18	14	4	...
13th Turkistán Line Battalion	16	15	1	...	23	19	4	...
5th Orenburg Cossacks	125	111	12	2	24	14	6	4
11th (Izum) Hussars	1	1	...	...	...	...	...	...
Turkistán <i>Jigits</i>	12	10	2	...	2	2	...	...
1st Turkistán Artillery Brigade	...	...	...	...	2	2	...	...
2nd Turkistán Artillery Brigade	1	1	...	...	...	...	...	...
Civilians and Civil Officials	1,212	1,105	101	6	27	23	4	...
Total*	12,046	10,720	978	348	904	700	169	35

* It will be noted that the losses of the 1st Orenburg and 2nd Ural Cossacks (belonging to the Turkistán Force), are not mentioned in this return.—J. M. G.

APPENDIX CII.

RETURN OF THE MEN INVALIDED AND DISCHARGED AS UNFIT FOR SERVICE FROM
AMONGST THOSE WHO TOOK PART IN THE AKHÁL-TEKKE EXPEDITIONS OF 1879-81.

Corps.	SICK.		WOUNDED.	
	Class II.	Class III.	Class II.	Class III.
73rd (Crimean) Regiment	14	6	...	...
74th (Stávropol) Regiment	11	15	2	3
81st (Apsheron) Regiment	3	2	3	6
82nd (Daghistán) Regiment	7	10	...	1
83rd (Sámur) Regiment	3	13	1	4
84th (Shirván) Regiment	9	9	1	10
15th (Tver) Dragoons ... ..	...	...	...	1
Poltáva Cossacks ... ..	...	1	...	1
Lába Cossacks ... ..	...	1	...	...
Taman Cossacks	2	3	2	1
Orenburg Cossacks ... ..	...	1	1	...
Ural Cossacks	1	...	...	3
20th Artillery Brigade ... ..	...	1	...	...
21st Artillery Brigade	4	1	...	2
Gunib Fortress Artillery	2	...	...	...
2nd Caucasus Sapper Battalion ... ..	...	...	...	1
Caucasus Telegraph Park	2	1	...	...
Heliographic Detachments	2	...	...	...
Krásnovodsk Local Battalion	7	11	...	1
Trans-Caspian Local Battalion	2	...	...	4
1st Reserve Railway Battalion	12	9	...	1
5th Turkistán Line Battalion ... ..	...	...	...	1
13th Turkistan Line Battalion ... ..	...	...	...	2
Alexandropol Local Detachment	2	...	...	1
Field Hospital Detachments	7	3	...	1
Government Transport ... ..	...	1	...	...
Caspian Flotilla ... ..	...	1	...	...
Total	90	89	10	44

APPENDIX CIII.

REGULATIONS FOR THE SOCIETY OF THE RED CROSS IN THE AKHÁL-TEKKÉ EXPEDITION.

The Society of the Red Cross has no hospitals of its own. Its principal spheres of activity are—(a) the giving of material assistance ; (b) the attendance of the sick by Sisters of Mercy ; and (c) the care of the sick during evacuation.

(a) *Material assistance.*

The Red Cross Society gives all the assistance in its power to the sick in the hospitals, infirmaries, regimental hospitals, convoys, dressing stations, and generally, and as far as possible, in all places accessible to it.

After satisfying the requirements of the medical establishments, the means at the disposal of the Red Cross Society will be directed, as far as possible, to preventing sickness among the troops by assisting in improving the hygienic conditions of their life.

From the resources of the Red Cross Society will be supplied such articles as are not issued at all by the military administration or are issued by it in insufficient quantity for local requirements, and therefore its sphere of activity will be added to the Government equipment, supplies, and medical stores, so that all may conduce to the more speedy cure or alleviation of the sufferings of the sick, and to all that may tend to improve the sanitary condition of the troops.

According to this programme, the central administration of the Society has already given orders for the despatch to the force of a considerable quantity of tobacco, soap, tea, sugar, &c., and it has also prepared linen for wearing and for bed-clothes, and stretchers fitted to be used instead of beds in those places where such are not provided by Government ; it has also ordered three ice-machines, and finally it has prepared a small supply of surgical stores to meet unforeseen requirements. At the same time attention will be paid to the improvement of the food with a view to preventing an outbreak of scurvy.

(b) *Attendance of the sick by Sisters of Mercy.*

Careful nursing of the sick and wounded is one of the best means of attaining their care, and therefore the Red Cross Society pays special attention to securing perfectly trained nursing sisters and to getting experienced managers for the kitchens.

The sisters are distributed by the plenipotentiary of the Red Cross Society among the hospitals and infirmaries, and also, in case of necessity, some may be attached to the convoys of sick, in which case the Red Cross Society arranges for their transport, &c. Each group of sisters is in charge of a senior sister, to whom, according to the regulations laid down by the War Minister, the medical authorities refer for all that concerns the sisters in the medical establishments.

The sisters receive 15 roubles a month from Government and the same sum from the Red Cross Society ; they receive officers' allowances and Government quarters on the same footing as officers.

N.B.—Quarters are to be detailed for the sisters in the same buildings as their patients, or, if this is impossible, in those nearest to them.

(c) *Invaliding of the sick.*

Not being able, under the unfavourable circumstances, to take the whole charge of the invaliding of the sick, the Red Cross Society proposes to take the following measures :—

- (1) It will provide, as far as possible, all convoys with linen and medicines, and will try to ameliorate the food.

- (2) It will furnish, as far as its means will allow, fittings for the transport of sick on camels, *arabas*, &c.
- (3) It will organize sea transport. With regard to this question, the following proposals are made.

On a steamer being sent off from the west coast of the Caspian, several Sisters of Mercy will be placed on board of it, accompanied by hospital assistants and sanitary troops. These will take with them in tales all that is required to fit up the ship for the transport of sick. On the arrival and unloading of the steamer, it will be at once fitted up for the transport of sick, and will take them to the west coast. A hospital surgeon will be detailed in case of necessity to accompany the ship. The sick will receive ship's rations during the passage, which will be paid for by the military administration. The Red Cross Society on its part will arrange for the rations being improved. The military authorities will assist the Red Cross Society as follows :—

- (1) They will give to it everywhere, where it is necessary and possible, buildings to be used as stores or as quarters for its *personnel*, without payment ; where none such are available, they will enable the Red Cross Society to mark off proper places for the construction of buildings from its own resources.
- (2) They will transport the stores and *personnel* of the Red Cross Society without payment on Government ships (hired or equipped), trains, wheeled or pack transport, and all other carriages, and in such a manner that the stores of the Red Cross Society do not get mixed up in delivery with military stores.
- (3) It will issue forage, free, to horses of the Red Cross Society.
- (4) It will detail the required number of soldiers from the local troops to look after the horses, and to act as servants to the Sisters of Mercy and to the officials of the Red Cross Society.
- (5) The chief plenipotentiary and the plenipotentiaries of the Red Cross Society and those acting as their agents have the right of unimpeded access to all military sanitary establishments and their detached sections. They are in no case to interfere with the orders of the military authorities, but are to make themselves acquainted with them, so that their actions may be in conformity with such orders, and that the aid given by the Red Cross Society may be properly distributed. The said persons are therefore to be furnished once and for all with written certificates by the Staff, which, on its part, will acquaint all Commanding Officers with the powers attributed to those persons.

APPENDIX CIV.

RETURN OF STORES, &c., SENT BY THE RED CROSS SOCIETY TO TRANS-CASPIA IN 1880.

Shirts	...	...	...	...	9,530
Drawers	...	...	...	...	7,920
Pillow-cases	...	...	...	...	3,500
Flannel counterpanes	...	...	...	...	2,507
Flannel coats	...	...	...	...	1,000

*Return of Stores, &c., sent by the Red Cross Society to Trans-Caspia in
1880—contd.*

Fur coats and sheepsikn coats	...	...	2,000
Bed curtains	...	...	1,230
Knitted waistcoats	...	...	5,190
Foot-cloths	...	...	10,719
Socks	...	...	4,360
Dressing-gowns	...	...	500
Cloth trousers	...	...	700
Great-coats	...	...	100
Felt boots	...	...	1,300
Leather boots	...	...	600
Slippers	...	...	500
Cholera belts	...	...	5,000

Bandaging material and Hospital stores.

First aid bandages	...	...	27,687	feet.
Thin lint	...	...	21,264	"
Prepared lint	...	...	21,263	"
Plaster of Paris	...	...	1,841.1	lb.
Iron bands of sorts	...	...	475	
Spectacles	...	...	550	
Eye shades	...	...	105	
Thermometers	...	...	106	
Amputating instruments	...	...	2	sets.
Medical instruments	...	...	6	"
Surgical instruments	...	...	16	"
Inhalers	...	...	44	
Crutches	...	...	150	
Salicilic wadding	...	...	541.5	lb.
Carbolic "	...	...	180.3	"
Hygroscopic "	...	...	721.8	"
Ice bags	...	...	271	
Oil silk	...	...	1,400	feet.
Guttapercha baskets	...	...	320	
Field medicine chests	...	...	2	
Hydropulps	...	...	19	
Stretchers	...	...	150	
Knives	...	...	200	
Forks	...	...	200	
Plates	...	...	500	
Tumblers	...	...	500	
Soup basins	...	...	500	
Salt boxes	...	...	500	
Small barrels	...	...	500	
Earthenware tea-pots	...	...	500	
Copper pots, 1.35 gallon	...	...	20	
Copper pots, 2.7 gallon	...	...	20	

*Return of Stores, &c., sent by the Red Cross Society to Trans-Caspia in
1880—concl'd.*

Pots with cooking-stoves	...	...	...	20
Wash-hand basins	...	...	...	50
Metal gloves	...	...	...	50
India-rubber gloves	...	...	...	50
Copper tea-boilers, 1·35 gallon	...	...	...	50
Copper tea-boilers, 2·7 gallon	...	...	...	50
Small iron tables	...	...	...	50
Chairs	...	...	...	100

Supplies.

Preserved milk	...	...	...	1,350	lb.
Cranberry extract	...	...	...	1,232	bottles.
Lemons	...	...	...	4,000	
Port wine	...	...	...	2,900	bottles.
Brandy	...	...	...	2,400	"
Riga Balsam	...	...	...	50	"
Spirits, 96°	...	...	...	135	gallons.
Tea	...	...	...	3,772·45	lb.
Coffee	...	...	...	685·9	"
Sugar	...	...	...	15,306·4	"
Preserved meats and vegetables	...	...	...	75,000	rations.
Soup	...	...	...	35	"
Dried whortleberry	...	...	...	469·3	lb.
Cakes	...	...	...	2,418·7	"
Officers' preserved meats	...	...	...	500	rations.
Soup	...	...	...	36,641·5	lb.
Tobacco	...	...	...	36,100	"
Preserved vegetables	...	...	...	1,083	"
Sago	...	...	...	361	"
Olive oil	...	...	...	100	bottles.
Estragon	...	...	...	200	"
Candles	...	...	...	1,083	lb.
Large filters	...	...	...	130	
Small filters	...	...	...	2,005	
Ice-machines, large	...	...	...	3	
Ice-machines, hand	...	...	...	30	
Tents	...	...	...	15	

Various Stores.

Books	...	...	...	6	bales.
Crucifixes	...	...	...	1,000	
Combs	...	...	...	500	
Tobacco-pouches	...	...	...	1,500	
Women's dresses and linen	...	...	...	200	
Children's dresses and linen	...	...	...	300	

APPENDIX CV.

STATEMENT OF THE EXPENDITURE INCURRED IN THE AKHÁL-TEKKE EXPEDITION
OF 1880-81.

	<i>Roubles.</i>
(1) Ships' rations and forage	2,952,940
(2) Transport of stores, hire and purchase of camels and horses	3,226,136
(3) Pay, rations, forage, firewood, and lighting money to the troops during the war	2,423,427
(4) Extra allowances, carriage, field rations, and travelling allowances for troops sent to join the expedition or brought back to winter quarters	422,279
(5) Field Railway (Décauville)	456,558
(6) Condensing Apparatus	285,930
(7) Trans-Caspian Military Railway and rolling stock	8,159,303
(8) Delivery in Trans-Caspia of various artillery stores from the Caucasus and from St. Petersburg	93,337
(9) Additional horses for the artillery	4,847
(10) Cost of <i>matériel</i> for the Horse Mountain Division	8,065
(11) Supply of various stores for the batteries in replace- ment of worn out or unserviceable articles	1,921
(12) Preparation of 4,000 Linnemann spades and 1,000 small axes, with packing and carriage to Trans-Caspia	5,041
(13) Cost of Siemen's apparatus and conductors, packing and carriage to Trans-Caspia	2,053
(14) Preparation of telegraphic and electric stores by the Engineer Administration, to replace those issued for the expedition	13,030
(15) Cost of instruments sent to Trans-Caspia from the Tiflis Circle Engineer Depôt	10,115
(16) Cost of portable entrenching tools sent from the 1st, 2nd, and 4th Railway Battalions to the 1st Reserve Rail- way Battalion	2,441
(17) Packing and despatch to Tsaritsin of telegraph stores for transport to Trans-Caspia	805
(18) Construction of 200 carts for the transport of the sick and wounded	41,947
(19) Cost of 300 wagons and 1,200 horses sent to Trans-Caspia in 1881	146,160
(20) Cost of train of field treasury	5,698
(21) Purchase of horses for the troops	6,662
(22) Surveying expenses	2,638
(23) Preparation of disinfectants	3,003
(24) Purchase of horses to replace those killed or lost	3,405
(25) Cost of stores	1,116,541
(26) Construction of a supply magazine at Krásnovodsk	11,172
(27) Office, &c., allowances	41,277
(28) Preparation of telegraph material	35,859
(29) Construction of the telegraph line	36,981
(30) Extraordinary expenditure*	233,442
(31) Purchase of barrels, rope, &c.	50,000
(32) Minor expenses, transport of supplies to the quays, preparation of biscuit, cakes, mats, &c.	316,323
(33) Reconnaissances, telegrams, and orderlies	5,624
(34) Camp and hutting stores	55,429
(35) Preparation of medicine chests for pack transport, medi- cines, and wooden and metal articles for the hospitals	55,436
(36) Engineer works	348,732
(37) Artillery requirements	37,580
(38) Transport of troops and stores to Trans-Caspia by the <i>Caucasus and Mercury Company</i>	574,419
Total	21,126,056

* For details, see Appendix XVI.—*Author.*

If from this be deducted the cost of the railway from Mulla-Kári to Kizil-Arvát, considered indispensable, not for the expedition so much as for the consolidation of the results of it, and finished $6\frac{1}{2}$ months after the capture of Gok-Tapa, the cost of the expedition will be 13,515,341 *roubles*.

APPENDIX CVI.

STATEMENT OF THE EXPENDITURE OF THE EXTRAORDINARY SUMS ASSIGNED FOR THE AKHÁL-TEKKE EXPEDITION OF 1880-81.

	<i>Roubles.</i>	<i>Kopecks.</i>
Assigned for extraordinary expenditure ...	250,000	0
Balance of the extraordinary sums assigned for the expedition of 1879 ...	4,157	0
Total ...	254,157	0

Expenditure.

For collection of information about enemy and pay of spies ...	11,968	0
Keeping up of relations with Persian and other neighbouring powers ...	18,986	0
Purchase of presents for the natives ...	20,795	0
Receiving and entertaining of Turkumán notables ...	14,311	0
Collection of information about the country ...	5,724	0
Purchase of heliographs ...	3,800	0
Extraordinary expenditure of Colonel Ivánoff of the General Staff in the purchase of camels on the Emba ...	10,000	0
Paid to the artist Karazin for forms of testimonials to be given to natives receiving medals, <i>khalats</i> , and presents ...	500	0
Paid to the Turkumáns Aba-Mulla, Khodji, and Kultán in May 1880, for assisting in keeping up a supply of camels at Duz-Ölüm ...	478	0
To the <i>Jigits</i> Ováz-Murád and Karakchi for delivering a letter at Pájnúrd ...	42	0
To Mahtum-Kulám-Ogli, an inhabitant of Kuchán, for assisting in the escape from captivity of the Lesghian Muhammad and of the Armenian Bagdasaroff ...	150	0
Issued to the Turkumán Geldi-Khán at various times as rewards ...	1,400	0
Riding and pack horses purchased for the mobile field treasury, with harness, a wagon, four horses for it, and spare articles ...	1,030	0
Repayment of money expended by Sub-Lieutenant Malinovski of the 83rd (Sámur) Regiment for the repair of Government wagons ...	25	0
Help to the families of the following Turkumáns killed by the Tekkes:—Kuvánchi, Chokhán-Amán-Ogli, Kirli-Muhammad-Ogli, Abda-Muhammad, Nazar-Ogli, Duz-Muhammad, Irik-Muhammad, Alamán-Mirza, Koka-Ján, and Kurbán-Durdi ...	1,049	22
Rewards to the <i>Jigits</i> Mahomaeff and Shám-Khán ...	180	0
Rewards for various services from <i>caravan-bashis</i> and camel-drivers ...	668	0
Reward to the Persian Mustafa for bringing a letter from Kuchán ...	60	0

Statement of the Expenditure of the Extraordinary sums assigned for the Akhól-Tekke Expedition of 1880-81—contd.

	<i>Roubles.</i>	<i>Kopecks.</i>
To the 4th company Stávropol Regiment for good shooting at the siege of Gok-Tapa ...	203	0
Repaid to Dr. Koválski for money spent by him in equipping dressing stations ...	296	50
Paid to soldiers as rewards for good service at the assault of Gok-Tapa ...	1,824	64
Reward to the miners excavating the mine during the night of the 11th (23rd)—12th (24th) January ...	2,300	0
Paid at various times to <i>Tigits</i> for delivering parcels in the siege-camp ...	125	0
Purchase of Tekke books for public libraries ...	160	0
Extraordinary expenditure of Colonel Grodekoff while Commander of the advanced force ...	1,717	10
Paid to Koshlu-i-Kázi for 337 camels hired from the Atabai in 1879 for which no payment had been made	2,130	50
Money issued to promote military re-unions at Krásnovodsk ...	1,000	0
Chikishliár ...	680	0
For Alexandrovsk ...	300	0
Paid to the Topographical Section of the Caucasus Staff for maps ...	300	0
Reward to the Turkumán Ensign Nafas-Mergen ...	760	0
To the special military store for order-books supplied for officers ...	297	55
Repaid to the Government of Yelisavetpol for extraordinary expenditure in the transport of drafts for the Poltava Cossacks to Baku ...	240	0
Repaid to the Amu-Daria District for money spent by Captain-Lieutenant Zuboff on his march to join the force ...	500	0
Paid to the <i>Caucasus and Mercury Company</i> for passages for couriers ...	101	18
Paid to influential Kirghiz as rewards for helping to collect camels in Mangishlák ...	582	50
Reward to Interpreter Alexander Agamaloff ...	200	0
Paid for seed for kitchen gardens for the troops ...	965	2
Extraordinary expenditure of the Commandant of the Atrak Line ...	3,000	0
Extraordinary expenditure of Colonel Verjbitski, commanding the advanced force ...	1,832	51
Extraordinary expenditure by Lieutenants Gurieff and Kriloff, Commanders of camel convoys ...	585	0
Extraordinary expenditure of Lieutenant-Colonel Haidaroff, Commandant of Bámi ...	63	0
Extraordinary expenditure of Staff-Captain Slavochinski, 156th Yelisavetpol Regiment and Sub-Lieutenant Voropánoff, 81st Apsheron Regiment, Commanding Volunteer Detachments ...	250	0
Expended for the journey of Lieutenant-Colonel Volkoff, of the General Staff, to Bujnurd and Kuchán ...	1,000	0
Expended for the journey of Lieutenant-Colonel Kuzmin-Karavaeff, of the General Staff to Teherán ...	1,574	32
Extraordinary expenditure of Major Sivinisi, of the Shirván Regiment, Commanding the Társakan force, for the construction of the telegraph line ...	1,000	0
Paid to the printer Artemieff at Baku for printing orders, circulars, and special instructions ...	1,796	53
Travelling expenses of a courier sent to Livádia ...	265	50
Extraordinary expenditure of the station Commandant at Chikishliár ...	400	0

*Statement of the Expenditure of the Extraordinary sums assigned for the
Akhdal-Tekke Expedition of 1880-81—contd.*

	<i>Roubles.</i>	<i>Kopecks.</i>
Paid for mustard bought for the advanced force ...	369	91
Extraordinary expenditure of the Acting Intendant, Colonel Kozelkoff ...	9,300	0
Paid to <i>Jigits</i> for keeping up communication with the reconnoitring force of Colonel Kuropátkin sent into the desert after the capture of Gok-Tapa ...	465	40
Extraordinary expenditure of the Superintendent of the population of the <i>oasis</i> , Major Spolatbog ...	4,125	0
Extraordinary expenditure of Lieutenant Krishtopenko, Commandant of Chát ...	349	14
Extraordinary expenditure of Prince Eristoff, Command- ing the Askhabád detachment ...	1,960	0
Paid at various times to 47 <i>Jigits</i> for horses lost by them ...	2,497	55
Reward to Bandmaster Sheremetieff of the Krásnovodsk Local Battalion ...	300	0
Extraordinary expenditure of Colonel Kuropátkin, Commanding the Turkistán detachment ...	4,078	93
Expenditure by Lieutenant-Colonel Kuzmin-Karavaeff during his stay on duty at Mashhad ...	566	50
Paid at various times to Said-Ali-Khán, Governor of Lutfábád, for services to the force ...	1,287	50
Paid to his brother Muhammad-Ali-Khán ...	1,350	0
Present to the inhabitants of Lutfábád for services ren- dered during the stay of the force there ...	303	50
Pay of Rám-Chandra and his servant ...	1,413	12
Paid to Tekkes as relief ...	620	0
Reward for distinguished service to Naval Command- ing Officer Yakovleff, 74th Stávropol Regiment, at the assault of Gok-Tapa on the 12th (24th) January ...	50	0
Extraordinary expenditure of Major Slovetiski, Station Commandant at Gok-Tapa ...	556	67
Expended by Ensign Kolieff for purchase of horses for the detachment of Ossetians to replace losses ...	3,494	95
Expended by Topographer (Titular Councillor) Sapo- noff during surveys in Persia ...	59	0
Expended by Captain Melnitski of the General Staff during his journey to Mashhad ...	457	50
Presents to Taghma-Sirdár ...	1,537	50
To Tekkes for carrying the post-bags between Lutfábád and Askhabád ...	350	0
Reward to our Agent Defour in Persia for services ren- dered to the force ...	2,428	20
To Prince Rukn-ud-Daula, the cost of the landau pro- mised to him ...	2,200	0
Pay of the Elders elected in the Tekke villages ...	4,625	0
Turpentine and other stores for the Shpakovski lamps ...	105	26
Reward to Interpreter Yezdnaeff ...	300	0
Paid for 3 riding horses, with saddles, bought for the heliographic detachment ...	187	0
Grant to hired Staff Clerk Sergeyeff, sent for cure to the west coast of the Caspian ...	100	0
Rewards to the men of the 4th Battery, 20th Brigade, for a forced march from Bámi to Krásnovodsk ...	140	0
Paid to the Tamán Cossacks for remounts and the pur- chase of new band instruments ...	3,000	0
Fête given to the Kirghiz inhabitants of Krasnovodsk ...	1,150	62
Reward to the men of the volunteer detachments for camels captured by them from the Tekkes ...	220	0
Rewards to Interpreter Cheveleffs and Kirkoff ...	95	0

Statement of the Expenditure of the Extraordinary sums assigned for the Akhd-Tekke Expedition of 1880-81—contd.

	Roubles.	Kopecks.
Expended by Interpreter Ter-Vortánoff during his mission to Persia ...	50	0
Extraordinary expenditure of Count Orloff-Denisoff, Aide-de-Camp, Inspector of Camel Transport ...	1,221	45
Rewards to <i>Jigits</i> at various times ...	582	80
Grant to Bandmaster Saidlitz, 74th Stávropol Regiment ...	200	0
Reward to five Tekke Sirdárs for useful information ...	655	0
Reward to Nasirbekoff, Russian commercial agent at Mashhad for services rendered ...	2,000	0
Expended for the supply of the force reconnoitring in March along the Persian frontier from Gávars to Bámi Guides for above force ...	1,292	27
Paid to Persians for pack animals for above force ...	257	25
Extraordinary expenditure of State-Councillor Heifelder, Principal Medical Officer of the Force ...	703	0
Expended by Major Pepelyayeff and Staff-Captain Glamazdin during their surveys on the Persian frontier ...	608	50
Rewards to the Kirghiz who accompanied Count Stetsenko of the Tamán Cossacks during his ride through the desert to meet the Turkistán force ...	3,173	50
Rewards to the men of the 3rd Company, 2nd Caucasus Sapper Battalion, who laid the mine at Gok-Tapa on the 12th (24th) January 1881 ...	1,800	0
Extraordinary expenditure of Lieutenant-Colonel Nechaeff, Commandant of the Bámi-Gok-Tapa road ...	3,000	0
Extraordinary expenditure of Colonel Artsishevski as Commander of the combined cavalry brigade ...	2,327	10
Extraordinary expenditure of Lieutenant-General Annenkoff, Commanding Lines of Communication ...	797	0
Extraordinary expenditure of Major-General Petrúsevitch ...	8,132	40
Presents to the servants of Shuja-ud-Daula ...	2,897	62
Rewards to clerks and soldiers attached to the Staff ...	1,020	0
Rewards to men of the Railway Battalion ...	1,000	0
Spent by Captain Baitokoff and Interpreter Agamaloff in accompanying Taghma-Sirdár and other Tekke notables to St. Petersburg ...	913	0
Repaid to <i>Voiskovói-Starshina</i> Koritski for sums expended by him above the allowance for the transport of the Décauville Railway ...	1,576	75
Reward to Interpreter Ter-Vartanoff ...	440	50
Pay of Yakhia-Bek-Tairoff, Secretary to the Staff, at 150 <i>roub.</i> a month from 1st (13th) July 1880 to 1st (13th) August 1881 ...	100	0
Rewards to men of steam launches ...	1,950	0
Paid for journey of a courier to Tiflis ...	400	0
Paid to the Commander of the steamers <i>Chikishliár</i> for transformation of the troop-deck and repairs to the steamer ...	86	92
Rewards to the soldiers of the Mission sent to purchase supplies in Persia ...	553	60
Expended for the journey of a courier to St. Petersburg with the recommendations for honours and rewards ...	777	27
Gratuity to the Cossacks as compensation for the loss of their property by the attack of Tekkes on a convoy on the 25th November (7th December) 1880 ...	250	0
Extraordinary expenditure of Colonel Grodekoff and Lieutenant-Colonel Volkoff during their mission to purchase supplies in Persia ...	407	7
	25,956	62½

*Statement of the Expenditure of the Extraordinary sums assigned for the
Akkál-Tekke Expedition of 1880-81—concl'd.*

				Roubles.	Kopecks.
Reward to Iván Kocharovski, Hospital-Assistant of the Durun infirmary	...	...	...	75	45
Reward to the Tekke Muhammad-Kuli, escaped from Marv	...	...	...	20	0
			Total	233,442	64 $\frac{3}{4}$

Of the above sum were expended—

In credit notes	...	...	...	199,247	70
Gold	...	...	...	5,582	60
Bank silver	...	...	...	28,612	34

Balance over and available for extraordinary expenditure ... 20,714 36

General Skobeleff laid the account of the expenditure of the extraordinary sums before the Commander-in-Chief of the Army of the Caucasus, each item being supported by documents.

APPENDIX CVII.

COPY OF A LETTER FROM GENERAL SKOBELEFF TO THE MINISTER OF FOREIGN AFFAIRS, MR. N. K. GIERS.

Eleven months have passed since the fall of Gok-Tapa. Since that even the greater part of the Tekkes have returned to their settlements, a deputation from Marv, with Bába-Khán at its head, has arrived at Askhábád, and the whole country is quiet.

In view of such brilliant results of the expedition, I must mention my feelings of boundless respect and deep thankfulness to our worthy representative at Teherán, Actual State-Councillor Iván Alexievitch Zinóvieff. To his advice and co-operation we are in a very great degree indebted for the success of the expedition.

From the first day of my taking over command of the forces in Trans-Caspia, Iván Alexievitch directed and supported me by his energetic representations at Teherán. Without this, I possibly should not have decided upon many things, which might have changed the whole course of military operations. The decision of the Ambassador to carry out the collection of supplies in Persia enabled us, after the fall of Gok-Tapa, to firmly establish ourselves in the *oasis*.

I have several times mentioned the services of Ambassador Zinóvieff to His Imperial Highness the Commander-in-Chief of the Army of the Caucasus. I now consider it my duty, as his immediate superior, to report to your Excellency how much I was indebted to Iván Alexievitch in the difficult undertaking entrusted to me by His Majesty the late Emperor.

No. 87.
St. Petersburg, 9th (21st) December, 1881. }

M. SKOBELEFF.

GOVT. C. B. PRESS, SIMLA.—NO. 11 Q. M. G.—0-11-85,—100.



FOR CONSULTATION
ONLY

USI-LIBRARY



10050001

Call No.

M584

G90 W

Accession No.

856 /

Title The War in Turkumania:
~~Skobeleff's Campaign of 1881~~

FOR CONSULTATION
ONLY